ONE SHILLING

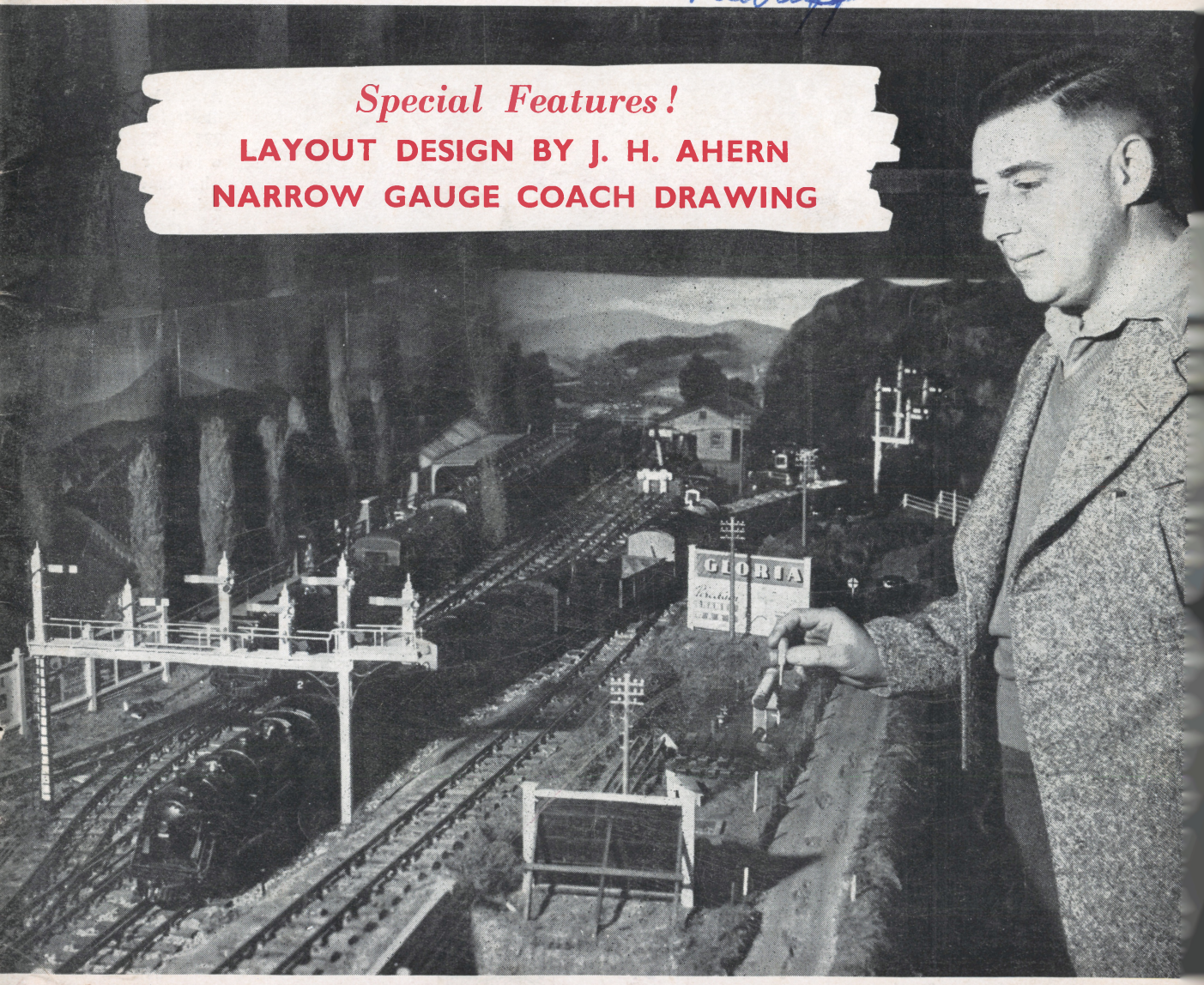
The MODEL RAILWAY NEWS

VOL. 29 No. 344 Redruth AUGUST 1953

Special Features!

LAYOUT DESIGN BY J. H. AHERN

NARROW GAUGE COACH DRAWING



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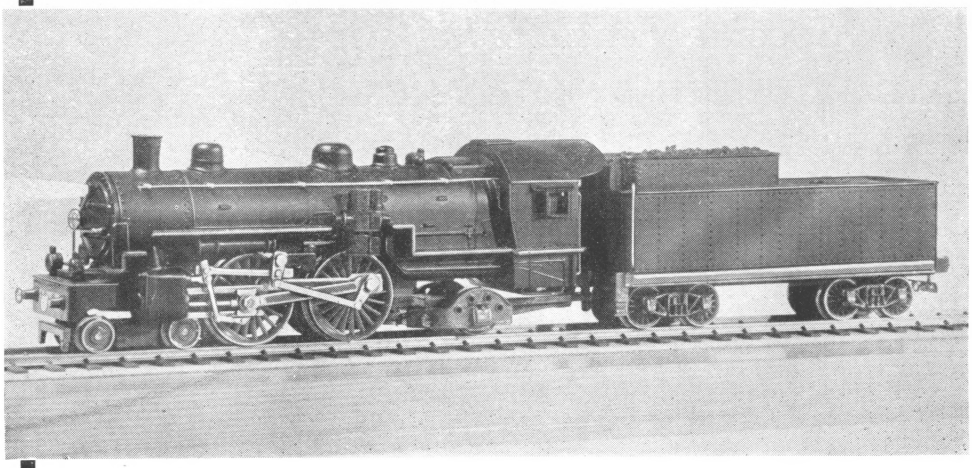

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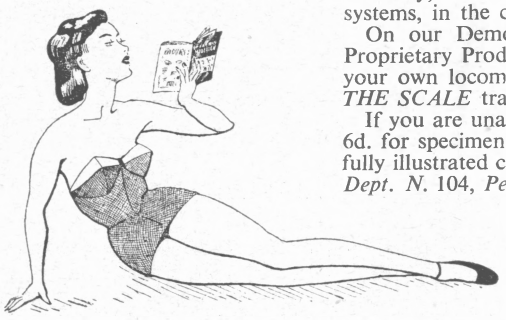

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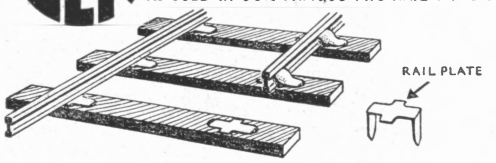

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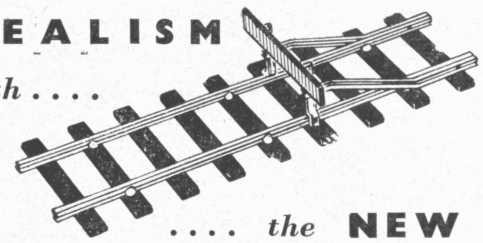

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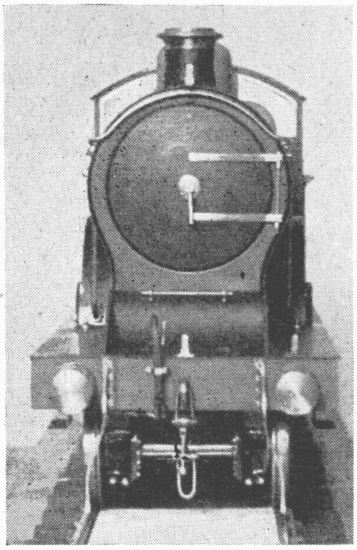

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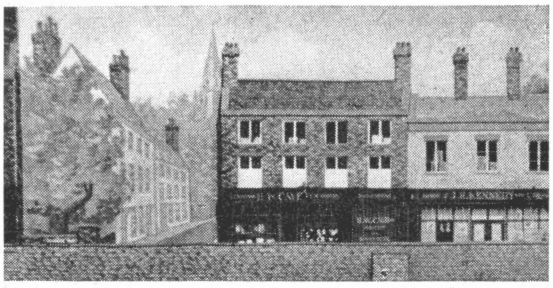

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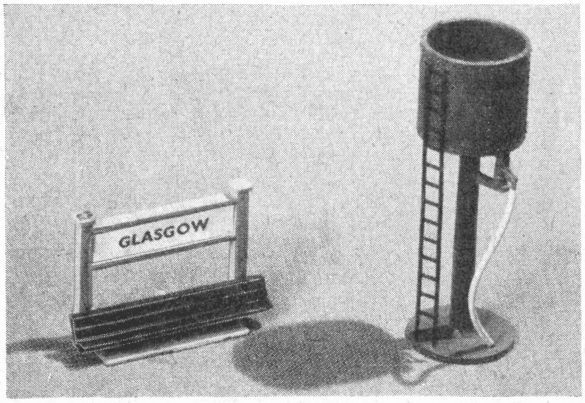

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COVER PICTURE

How goes railway modelling "down under"? Quite well, judging by this month's cover. Mr. K. N. Lowry, of Melbourne, Victoria, with intent expression, takes his train through the cross-over on his most realistic branch line typical of those operating in a sparsely populated Australian country area. The general scene is very convincing—but we can't make out why all the signals are at danger! This photograph is from the Australian News and Information Bureau.

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The Editor invites correspondence and original contributions on all aspects of model railways in the smaller scales and on suitable prototype subjects which should be addressed to him at 19-20, Noel Street, London, W.1. Telephone: GERrard 8811

The MODEL RAILWAY NEWS

19-20 NOEL STREET, LONDON, W.1.

THE problem of achieving a satisfactory degree of realism in a model railway is one that has been with us ever since model railways began, and we are inclined to doubt whether a really conclusive solution will ever be found. We are not in the least unmindful of the fact that there are many model railways in which a wonderful amount of realism is to be seen in most of the chief features; but, to the strict purist, they leave a lot to be desired, and we know of some people who have started out glibly to make everything as realistic as possible, only to find later that the ideal appears to be impossible to attain.

The difficulty is aggravated by the very wide variety of opinion as to what *realism* means, as well as the differences of outlook held by those people who endeavour to reach a satisfactory solution of the problem. To begin by assuming that realism means making everything exactly to scale, and including every detail that would be found in the prototypes, is asking much too much. Rather, the more correct approach is to decide how much detail can be omitted, or left to the imagination, without spoiling the overall effect of the model railway; and in this matter, a great deal of ingenuity is required and is often displayed. Such a decision, however, is itself governed by a number of different factors, such as: the space available for the layout, the time to be given to it, and the financial resources involved. In no case that has come to our notice, so far, have these factors—or, indeed, any one of them—been unlimited; but this does not mean that a convincing model railway is impossible to build. The back volumes of THE MODEL RAILWAY NEWS and the various periodical model railway exhibitions show, conclusively, that the contrary is the case.

The question, therefore, is: how is it done? The answer is that there are several ways, each of which should be given due consideration before a start on tackling the main problem is made. The worst case is that of the lone enthusiast whose space, time and finances are strictly limited. The soundest advice that can be given to him is that he should exercise patience and perseverance; read as much model railway literature as he can find; not to work out an elaborate plan, but to be content to begin with a very simple scheme that can be elaborated in the future, and he should be prepared to make as much as possible himself, leaving his limited financial resources for the purchase of essential items that cannot be made at home.

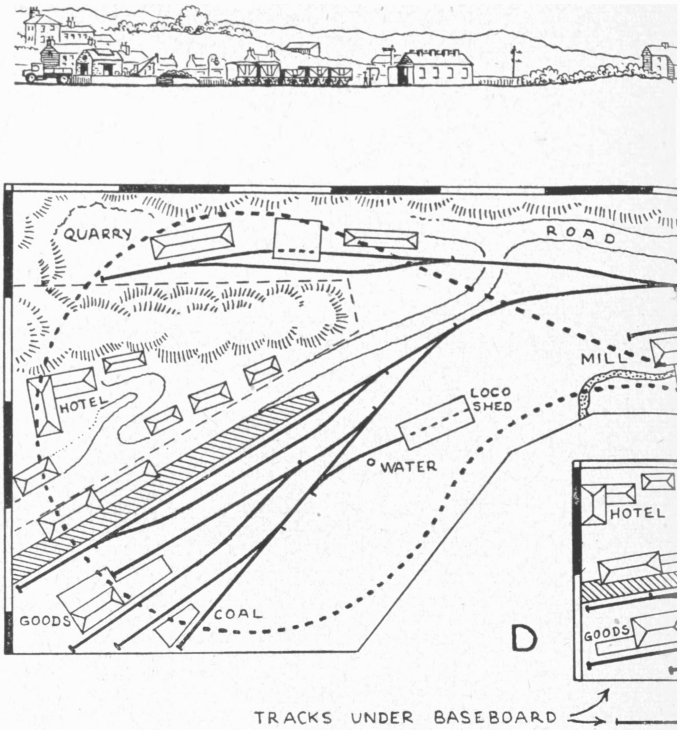
Some kind of workshop equipment is desirable, of course, but this need not be more than a handbrace, a metal-cutting saw, some small drills and a selection of small files. Soldering equipment should be included as a necessity; but a lathe, while it is undoubtedly useful, need not be regarded as an essential item.

Much can be done by collaboration with one or more fellow-enthusiasts, or joining a club. In this way, not only is constructional work facilitated, but the pooling of ideas through discussion and mutual help almost always leads to a quicker decision regarding the initial planning and future growth of the basic scheme. At the same time, it aids in deciding upon the degree of realism to be achieved; but, once this last-mentioned point has been decided, it should be consistently applied to all the features of the layout, whatever scale is being worked to.

Above all, full-size railways should be studied and observed; for realism does not only entail deciding what details to include or omit, but it also includes some indications as to the reasons why some details are used at all; e.g., white diamonds on signalposts.

LAYOUT for a long narrow space

by J. H. Ahern, F.R.P.S.

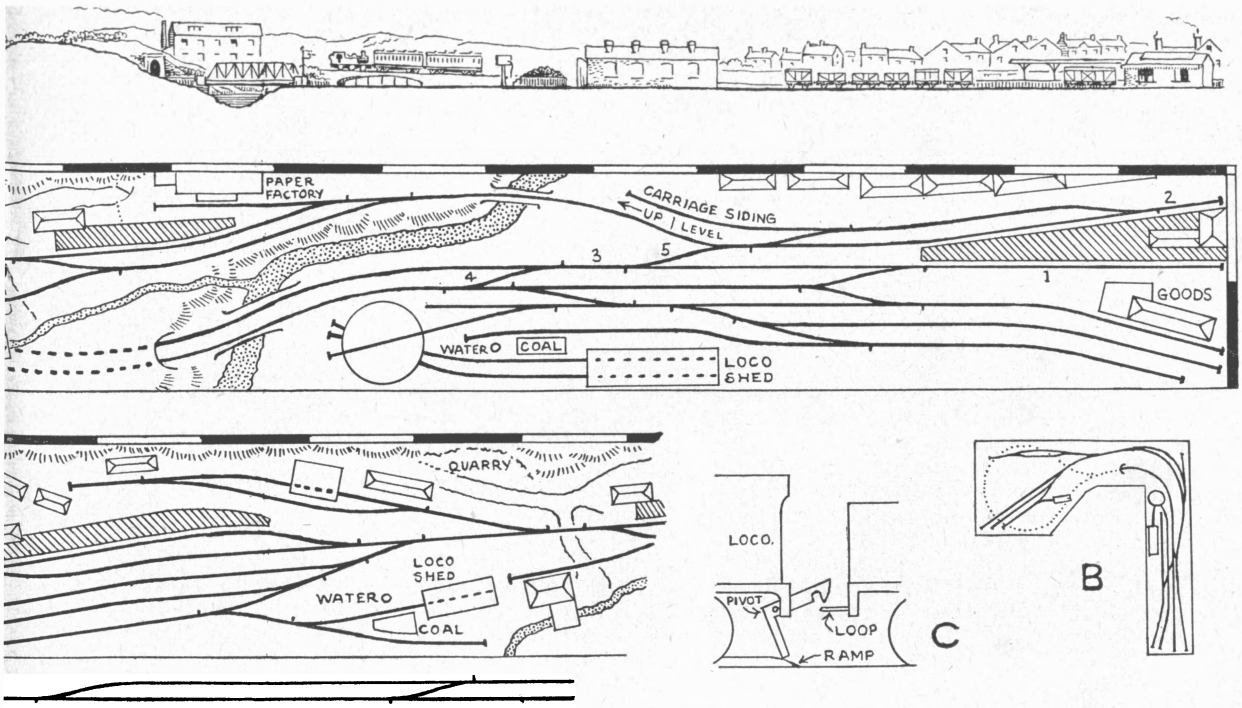


NEARLY all model railway plans are drawn on the assumption that a whole room, and all four walls of it, will be available for the right-of-way, but there must be many prospective builders who are not quite so happily situated as that. Only one or at most two walls may be available, or in some cases the site may be a long narrow passage, or something more or less equivalent. So it may be of interest to consider what might be done in " OO " gauge in such circumstances, and for the plan reproduced herewith I have assumed a space measuring 18 ft. long by 2 ft. wide, with the possibility of bagging a little more width up at one end. At this point the width of the baseboard has been increased to 4 ft. 4 in., but since even this small addition may be out of the question I shall show later that it is possible to keep down to 2 ft. everywhere, without sacrificing any of the operating features of the scheme, although with some loss of scenic effect. For I have assumed that the builder may be interested in the scenic aspect, and have tried to avoid crowding the baseboard with tracks to the exclusion of everything else. The border of the plan, by the way, is divided to form a scale of feet.

There is another possible variation to be considered: the builder may not have one long wall but two shorter ones at his disposal; two sides of a room, perhaps, each about 10 ft. long. It may be necessary to keep the rest of the room free for a workshop or for storage purposes, or even as some sort of living room. The small plan *B* suggests how the layout might be adapted to such a situation

Now let us see what the plan consists, and how it is intended to be worked. A simple point-to-point arrangement in so restricted a space would not provide much interest or scope for operation. In the present plan our main station is the terminus of what we may call a " main " line from some imaginary centre, but out terminus is also the beginning of a single-track branch line, which serves a small pleasure resort in hilly country, and also a large quarry, lime or cement works, with a passing station and one or two smaller industries on the way. I have called these a paper factory and a mill, simply to have some means of identification; the reader can follow his own fancy in the matter. The principal feature of operation is interchange of traffic between the main line and the branch. The said main line enters a tunnel, shortly after leaving the terminus, where in reality it forms a return loop, so that outgoing trains can turn round and reappear when required. Operation would proceed in this fashion. A passenger train arrives from the main line. It draws into platform 1, while the branch train, composed of a small tank engine and a couple of coaches, waits on platform 2. When the passengers have transferred, the branch train sets off on its journey. The main line train backs out of the station as far as 3 to enable the locomotive to run round for the return journey.

When a goods train arrives from the main line it must pull forward nearly into the station and



back over the crossover 4 in order to reach the goods depot. As a matter of fact, the working of this layout involves a good many shunting and backing up movements, and one can imagine the yard master having some forceful things to say about it sometimes. But after all, that is what it exists for, isn't it? Unless you like shunting movements you won't build a layout of this kind. Still, the reader can easily add a facing crossover in order to avoid this particular movement if he wishes.

The main line goods train is broken up at the terminus, and spots wagons for the branch on one of the sidings in the yard. And in due course the little tank engine, which works the branch traffic, makes its way across, via crossover 5 and 4, picks them up and takes them over to its own side of the station. There they are tacked on to the next passenger train, if there are not enough to make up a goods train. Actually, there should be quite a variety and volume of traffic; for in addition to the three industries (and the quarry would justify a few high-capacity hopper wagons, which are nice things to model) there might be the milk and the fish and meat, and perhaps vegetables or fruit, for the village and hotel at the terminus of the branch, and an occasional horse box, or motor car van. Our branch goods train can drop wagons on the way up, and perhaps make a special journey for the quarry, as this leads off into the hinterland from the passing station, and, being quite extensive, almost constitutes a small branch by itself.

The branch terminus is separated from the quarry by a range of hills. There is a run-round and a small yard, and a locomotive shed to house one locomotive, but capable of enlargement, with coal siding and stage. There is no turntable because the tank engine would not need turning, but space could be found for one if desired. A drawback of the arrangement is that the quarry siding is situated further from the edge of the baseboard than the operator could conveniently reach. For normal operation this could be overcome by fitting some system of automatic uncoupling, so that the engine could draw forward to the buffer stops without the necessity of reaching over. But to facilitate track maintenance it is suggested that the hills, together with the hotel, in fact the whole of the area enclosed by a broken line, should be built on a separate baseboard and just laid in place, in suitable rebates, without any fixing. Thus it could be lifted out bodily to provide an access space whenever it might be necessary to get at the quarry for any purpose. If it is not desired to employ one of the regular automatic uncoupling systems, the engine could be fitted with a simple pivoted hook, operated by a trip lever and fixed ramp, as shown at *C*. It should be pointed out that unless the engine always runs with the front facing the same way the trip lever and ramp must be out of centre, or the lever would foul the ramp and stop the engine when running the other way round. The arrangement

might be made to work at other points on the system by means of movable ramps, operated by simple rocking levers.

It is suggested that the scenic effect will be improved if the hotel is situated on a slightly higher level than the station, about 1½ in. higher, say, with the road climbing up to it round a sharp hairpin bend. Most model railways seem to be far too flat. An old smooth stuccoed Regency building would be quite appropriate for the hotel; it should be provided with outbuildings, such as a stable converted into a garage, perhaps a tea garden or tennis court, with a net made of some fine veiling or similar material. There is room for an inn and several cottages or small shops behind the station.

The goods depot must be of a special shape, as suggested on the plan, to make room for a bay for loading of road vehicles.

Retracing our steps to the junction-terminus, it will be seen that we have managed to find room for a 9-in. turntable, for the main line engines, adjoining the goods yard, and a small running shed with coal stage and siding. It should be noted that this turntable is not large enough for the largest locomotives, and if anything more imposing than a 4-4-0 is to be used it will be necessary to build the turntable out an inch or two beyond the normal edge of the baseboard, so that the diameter can be increased. It will be seen that the branch is made to swing away from the main line immediately it leaves the station; the river is introduced to increase the sense of physical separation, and to provide an excuse for building two different types of bridge.

Now as regards the very important subject of gradients: the branch starts to climb as soon as it leaves the junction-terminus, and it must rise at least 2½ in., more if possible, above the main line in the tunnel in about a 7 ft. 6 in. run. It follows that a steady gradient of 1 in 35 should just about do what is required. This is, perhaps, rather steeper than is really to be recommended, but since trains on the branch will be light it is not unreasonable, and engines should have no difficulty in dealing with it if they have small wheels and are fairly heavy. But the branch line gradient could be eased by arranging for the main line to run down hill on its way to the tunnel, and onward to the point where the up and down tracks diverge to form the return loop. This does not really complicate the construction of the baseboard and substructure, and is strongly recommended. By this means the average gradient could be reduced to almost half of what it must be if the branch line has to do all the climbing.

As regards curves, all points have been drawn to 2 ft. radius, although some could be easier; other curves have been made as large as possible, subject to a maximum of 4 ft. radius.

It is most important that every part of the track inside the tunnel should be accessible for cleaning and adjustment, and when I say every part I mean just that—literally every inch. And since it is clearly impossible to carry out repairs or adjustments to track or third-rail, if fitted, with only about 2¼ in. or 3⅜ in. headroom, it is suggested that the circle should be laid on a well screwed structure of planks or matchboarding, two layers screwed together to prevent warping, and to facilitate the making of halved joints between the sections. If used in this manner, stuff about ⅜ in. thick should suffice. This structure, which needs to be substantial so that it does not require much support, can be hung from metal or wood brackets, secured under the baseboard, at three or four points, and be quickly removed by releasing a few screws or wing nuts. If the connections where this movable section joins on to the tunnel tracks on the main baseboard are carefully made, it should be possible to dispense with fishplates at the point of junction. Register pins should be used to secure alignment, as is the usual practice with lifting sections in front of doors. The outer edge of the baseboard in the tunnel should be guarded by a fence of stripwood as a safeguard against derailed trains flying off into space.

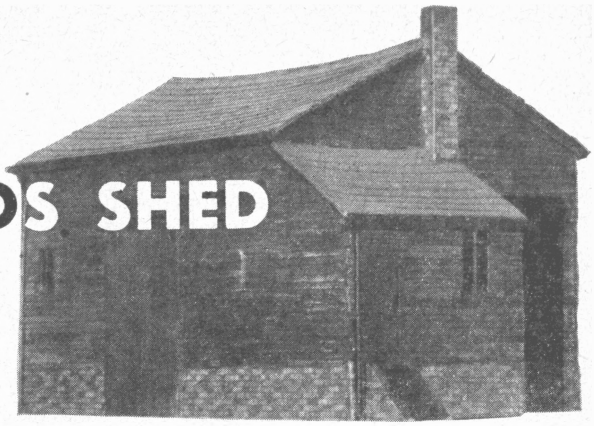
But as mentioned earlier, we must suppose that it may not be possible to extend the baseboard at the west end beyond the general width of 2 ft. Then the variation shown at *D* is recommended. We must dispense with the return loop and substitute a run-round and crossover, to enable the train to be reversed. In the diagram this is shown not in its actual position, under the baseboard and as close as possible to the front edge, but separately, in order to avoid confusing the drawing. An auto uncoupler, as described in connection with the quarry, might be fitted to release engines automatically, and the last few inches of track should be a normally dead section, only energised by means of a push button. This is to safeguard the engine, which presumably would be out of sight of the operator, from dashing on into the buffer stops. The difficulty remains that the engine cannot be turned, and must emerge from the tunnel tender first. The only remedy I can see is to make the dead end in the form of a turntable, so that the engine can be reversed as soon as it detaches from its train. It could be a simple hand-operated affair, without any pretensions to realism. A spring loaded ball catch, of the kind used for small cupboard doors, might be used as a stop to ensure alignment of the tracks, and it could serve also as one of the electrical contacts. Alternatively, tank engines could be used exclusively, and have an obvious advantage on a line where platforms and length of run are short.

Apparently it is quite possible to make spring loaded points work satisfactorily in this gauge, so that trains will run through them, in the trailing direction, and they will revert to the normal position when the last wheel has passed. By installing points of this kind for the run-round in the tunnel, the process of reversing a train could be made almost automatic, in fact anyone with a passion for electrical wiring diagrams (which I certainly

(*Continued on page* 164)

Modelling a

COUNTRY GOODS SHED



by Ivor J. Swain, A.I.A.S.

Full instructions for building an attractive model

THIS article describes the construction of a 4 mm. scale goods shed with a lean-to office at one end. This type of shed is usually situated on a siding next or near to small country stations, for loading and unloading merchandise under cover and has a railway line running through so that wagons can be shunted in.

The materials required for its construction are as follow:—

Cardboard (preferably the glazed variety).
Balsa cement.
Brick and slate paper.
Single-edged razor blade or similar cutting tools.
Steel rule or straight edge for use with the cutting tool.
Millimetre scale (marked on an ordinary 12 in. school ruler).

As mentioned in a previous article, the use of balsa cement is strongly recommended as it sets quickly, enabling the modelling to proceed without annoying delays.

Sides

Start by drawing the outline of the sides *A*, *B*, *C*, *D*, *E* and *F* on suitable size cardboard, following the dimensions given in Fig. 1 (which are all in millimetres for 4 mm. scale) and cut same out.

On side *B*, mark on and cut out the small window opening, similarly the two openings on *C*, one opening on *D* and the two openings on *E*. Prepare a band of brick paper 14 mm. high and fix it along the bottom of each side to represent the brick plinth above ground level. Use a weathered type of brick paper as this is more in keeping with the character of the structure.

Weatherboarding

The weatherboarding can be represented in two ways—either by scoring horizontal and parallel lines 2 mm. apart, or by sticking on strips of thin card, properly lapped as in full-size practice. The writer carried out the latter method and the extra trouble was well worth while and very convincing as can be seen in the accompanying photographs.

For those modellers who wish to adopt this particular method, here is the procedure. Prepare strips of thin card 4 mm. wide (a correspondence file cover is the ideal material). On each of the sides in turn, mark out and draw horizontal and parallel pencil lines 4 mm. apart, to serve as guides for the laying of the strips or weatherboards. Commence with side *A* as this is more straightforward than the others. Cut the first strip to length and stick this along the top of and tight up against the brick plinth. Continue laying strips, one by one, so that the following strip half overlaps the former, using the pencil guide lines as you go along until the top is reached. In other words, work from the bottom to the top. The last strip should finish flush with the upper edge of the side. Now deal with the other sides in a similar manner, *with the exception of side D* (the reason for this will be seen later on), stopping the strips at the edges of the openings. As a word of warning, make sure the boards are fixed to the correct face. It can, be so disheartening to discover the error after spending a good deal of time covering the wrong face !

We now come to side *D*. Mark on the guide lines for the boards in pencil otherwise it will be more difficult to do this at a later stage. Form the chimney stack unit from lengths of card 118 mm. long by 8 mm. wide, stuck side by side to arrive at the required thickness of 4 mm., the final size being 118 × 8 × 4 mm. Cover this completely with brick paper and stick to side *D* in the position indicated in Fig. 1, i.e. 2 mm. from the left edge of the large wagon opening. Before the boards can be fixed to this particular elevation, the parts already made have to be assembled.

Assembly

To assemble, start with side *B* and erect sides *C*, *D* and *E* at right-angles, as shown on the key plan in Fig. 1. To strengthen the model, small narrow lengths of wood can be stuck along the inside of the joints. Place in sides *A* and *F*, the latter to meet and to be flush with the edge of the chimney stack. The boarding can now be laid to the exposed parts of side *D*.

Roofs

The main roof slopes are formed from two pieces of card, measured and cut so that the sides and

bottom edges overhang the walls by 2 mm. Cut a small piece out of each to accommodate the chimney stack. The meeting edges along the ridge should butt up tight. Before finally fixing the slopes into position, it must be decided whether slate paper is to be used for the slates or whether they are to be made up in relief, employing a similar method to that used for the weatherboards. If the former, apply slate paper with the courses running lengthways, the ridge tiles formed from a strip of slate paper, two slates wide, folded to an inverted V and fixed along the apex to mask the joint.

For the relief type of finish which is far superior, proceed in the following manner. Mark parallel and horizontal pencil guide lines on the two slopes, 8 mm. apart and secure the slopes on to the model when this is done. On a sheet of thin card (as used for the weatherboards), not less than 300 mm. wide by 240 mm. high, draw horizontal lines 4 mm. apart and vertical lines, also 4 mm. apart. The result will look like a chess board. Lightly score the vertical lines with the razor blade and straight edge and be careful not to cut right through. Now cut along every other horizontal line to obtain strips or courses of slates 8 mm. wide. The pencil line running along the centre of each strip is for guidance when laying. Stick the first strip of slates along the bottom edge of the roof slope for the first course. Proceed with the other strips in turn, half lapping over the preceding one until the top is reached. *Note.*—Each course of slates is " staggered " so that the vertical joint of the upper slate comes centrally over the slate immediately below it. The ridge is formed from two strips of card 2 mm. wide, laid parallel to each other either side of the ridge, with their top edges meeting and forming a tiny V. Into this V, lay a length of wire, about 1 mm. diameter, for the ridge roll.

The main roof is finished off by adding the fascia and barge boards, which are strips of card 2 mm. wide, stuck under the eaves each side and at the two gable ends.

Another piece of cardboard for the sloping roof is now prepared, slated, fixed and the fascia and two barge boards fitted, all as described for the main roof.

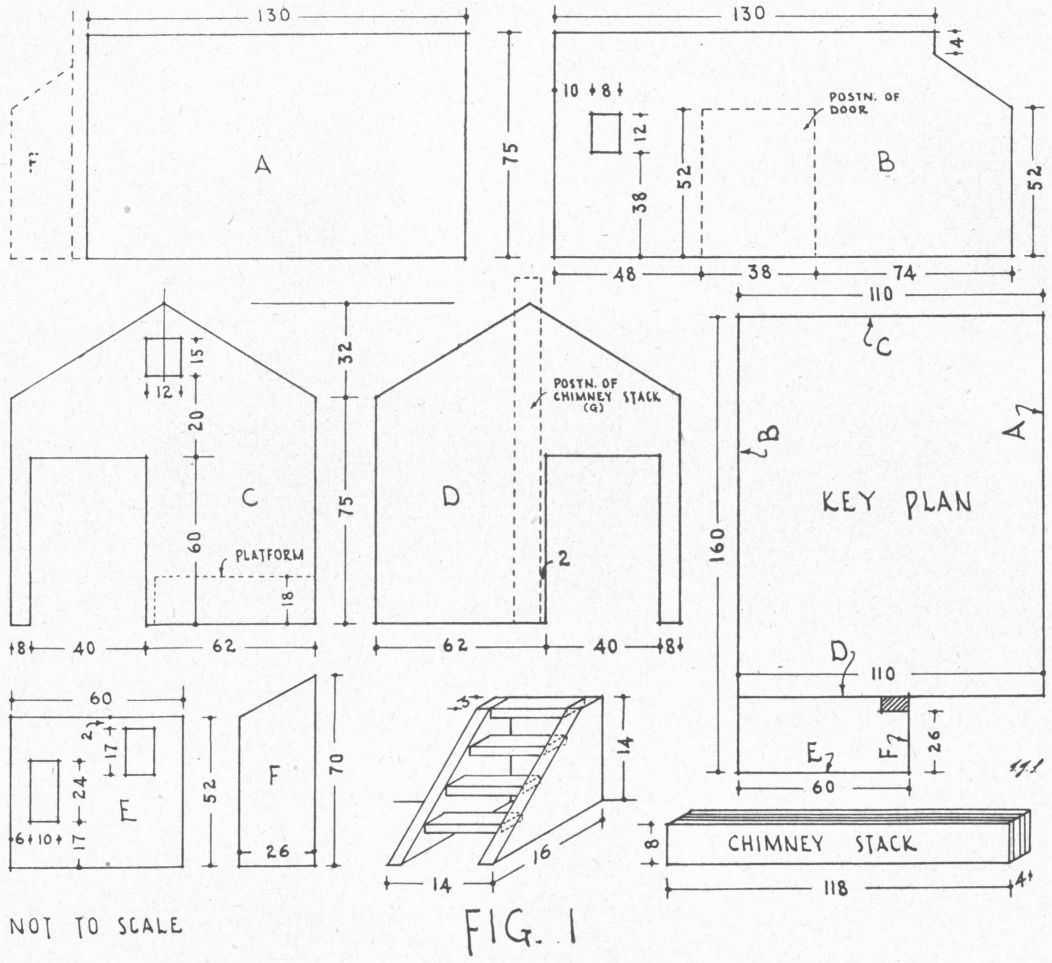


FIG. 1

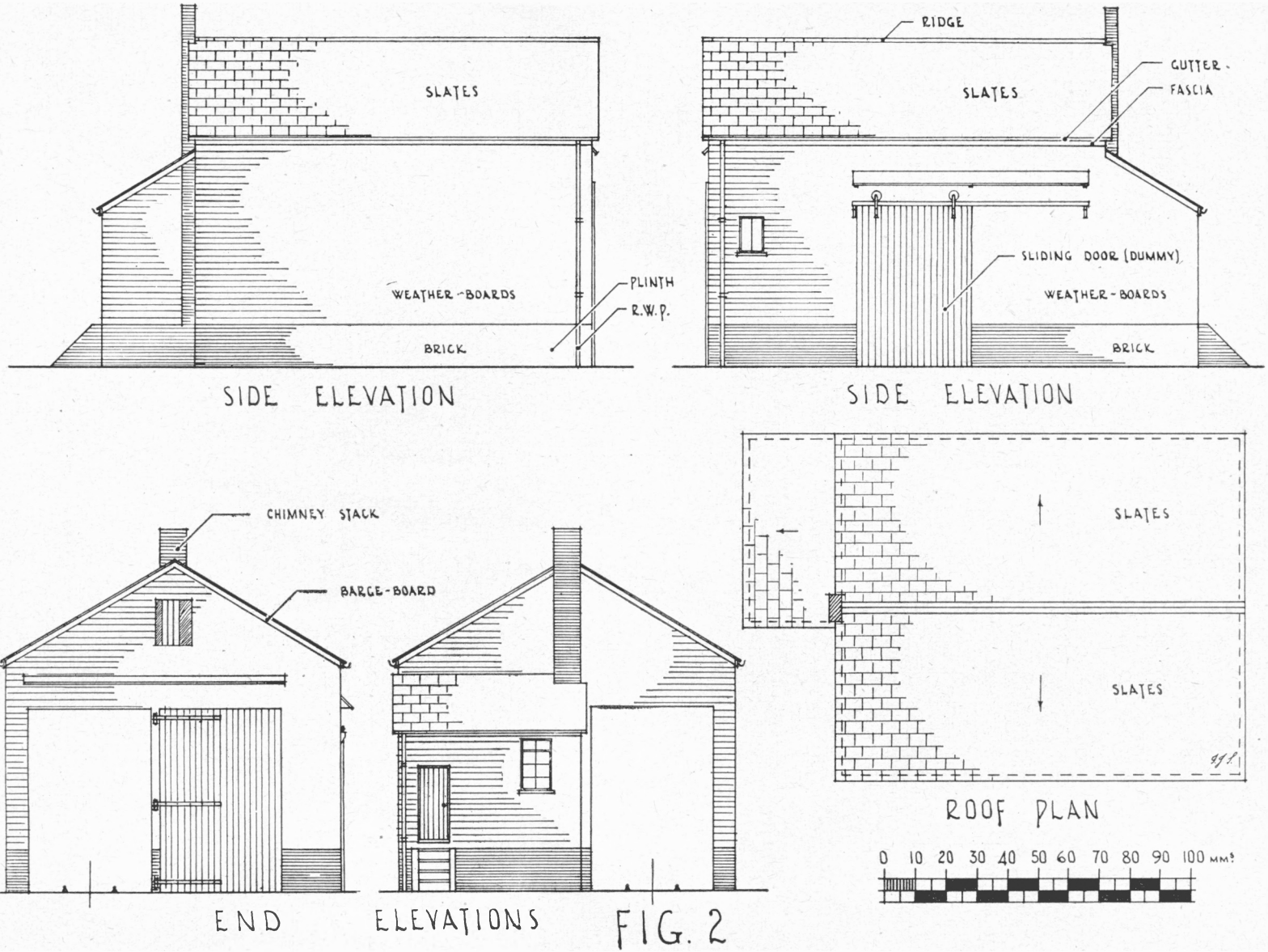

SLATES
WEATHER-BOARDS
PLINTH
R.W.P.
BRICK
SIDE ELEVATION
RIDGE
GUTTER
FASCIA
SLATES
SLIDING DOOR (DUMMY)
WEATHER-BOARDS
BRICK
SIDE ELEVATION
CHIMNEY STACK
BARGE-BOARD
END ELEVATIONS
SLATES
SLATES
ROOF PLAN
0 10 20 30 40 50 60 70 80 90 100 MM.

FIG. 2

Doors and Windows

Reverting to side *C*, cut out a separate piece of cardboard for the dummy hinged door, 40 mm. wide by 60 mm. high and score on boards vertically, 2 mm. apart. Stick this door to the model, 2 mm. from the right edge of the wagon opening and add strips of paper to represent the three hinges. Above this door, in the position shown in Fig. 2, prepare a strip of card 85 mm. long by 3 mm. wide and stick it on at 45 deg. for the rain guard.

Similarly, prepare and place the second dummy sliding door, 38 mm. wide by 52 mm. high, into position on side *B*, but with a larger rain guard measuring 77 by 5 mm. also set at 45 deg. and resting on three small triangular card brackets which can be seen on the "end elevation," Fig. 2. The runner is formed from a strip of card 1½ mm. wide laid across the top edge of the door, each end packed out level with a small bracket. Two small sequins were used for the wheels on the writer's model, with paper hangers added.

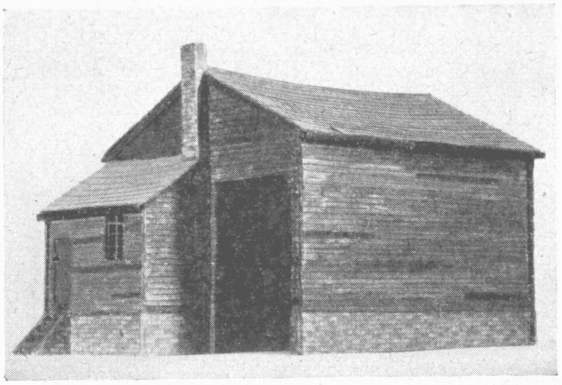
To make the office door on side *E*, cut a piece of card slightly larger than the actual opening and score the boards on vertically, 1½ mm. apart and using a pin with a filed down head for the door handle. Stick the door in position from the rear to give the proper recessed effect. Add the timber threshold or step cut from a match, half thickness, to fit inside the opening at the bottom of the door, The window on this side and on side *B* is formed from thin celluloid, again cut slightly larger than the opening, with the glazing bars scored on and then placed in position at the rear of the openings. Form the cills from matches in the same way as for the door step. The opening at high level on side *C* is supposed to be partly boarded-up with only three boards in position, the remainder presumed to have fallen out due to old age.

Steps

Fig. 1 also shows the measurements for the office steps, built up from two card sides, thickened out with additional card to give 3 mm. overall thickness. Cover these two sides all over with brick paper. Fix them in position under the door on side *E* so that the outside faces are 14 mm. apart then add four card steps, each 3 mm. deep.

Platform

The platform inside the shed can now be formed, the position can be seen marked in dotted lines on side *C* in Fig. 1. with a riser 18 mm. high to bring the platform height this distance above ground level, full length of the shed. Cut and fix the cardboard for this platform, the front edge flush with the riser, cover the riser with brick paper and add a nosing of card 3 mm. wide along the front edge of the platform.



Gutters and Rainwater pipes

The gutters are made from umbrella rib. Although this material is slightly oversize, the difference is hardly noticeable. The ribbing will have to be snapped to length and secured to the fascia boards under the eaves with blobs of balsa cement to hold it in position. Rainwater pipes are formed from 1 mm. diameter wire with spots of balsa cement for the joints.

Finishing Touches

To finish off the model, smudge the brickwork with thin black watercolour applied with the finger tip, stroking in a downwards direction. Treat the slate paper in the same way is this has been used but the relief modelled slates have to be coloured dark grey. The weatherboarding and doors are coloured brown with a board here and there picked out in a darker shade. Burnt umber seems to be the right brown to use. If available, add a few drops of ox-gall to the watercolours to overcome the greasy nature of the surfaces and the glaze left behind by balsa cement. The gutters and rainwater pipes and the top surface of the chimney stack are painted matt black.

LAYOUT FOR A LONG NARROW SPACE

(*Continued from page* 160)

have not) could with a little ingenuity make the process completely automatic, probably with the aid of a drum controller, of the kind used for flashing signs.

The run-round scheme shown in *D* has one advantage over the return loop arrangement; since all tracks can be kept close to the outer edge of the baseboard, there is no difficulty about making them accessible, and it would be easier to dodge any difficulties with the supporting trestles and substructure of the baseboard. The tracks could be concealed by a curtain, hung from a rail on the edge of the baseboard, or by a hinged wood flap.

In other respects the only material difference between the original plan and the modified one is that we have been obliged to compress the branch terminus and the quarry together, and to dispense with most of the scenic effects between.

RAILWAY TOPICS

BY I. N. MASKELYNE, A.I.LOCO.E.

OFF HER BEATEN TRACK

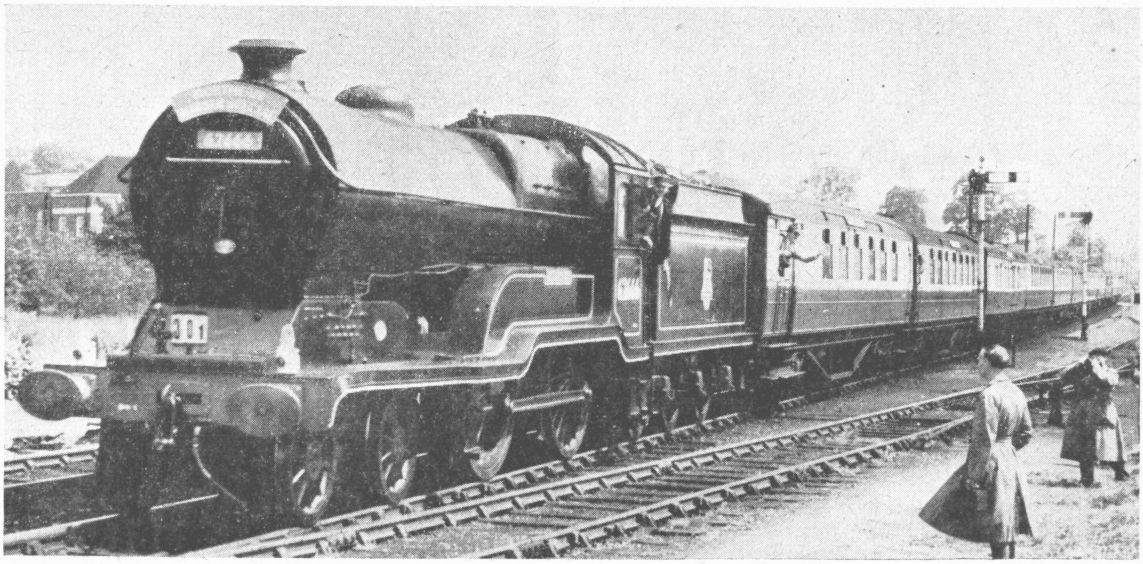
AN extremely well-organised excursion took place on the occasion of the Northern Rubber Company's annual outing on June 6th last. The party was conveyed from Retford, Notts, to Bourne End, Bucks, in an 11-coach train of some 380 tons tare weight hauled by ex-Great Central " Director " class 4-4-0 engine No. 62666, *Zeebrugge*. The party detrained at Bourne End and proceeded to a landing-stage on the river, where three launches were waiting to take the excursionists to Windsor by way of one of the best reaches of the Thames, via Cookham, Maidenhead, Bray and Dorney.

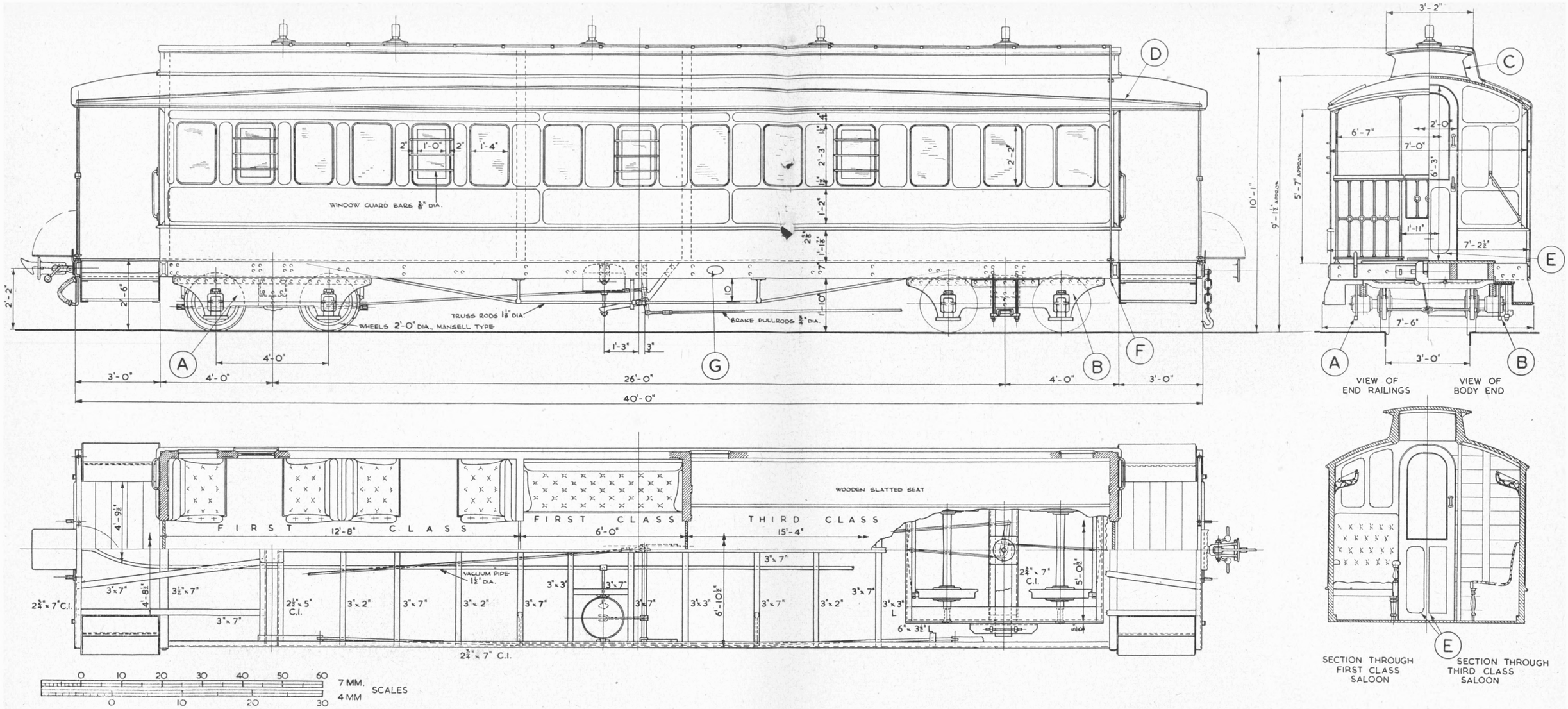
Meanwhile, the train proceeded from Bourne End via Maidenhead to Slough, where *Zeebrugge* was run round to the trailing end and, tender first, traversed the Slough East curve to Windsor, there to wait for her passengers' after their river trip

To the railway enthusiast, the chief interest centred on *Zeebrugge*; so far as I am aware, she is the first of her class ever to have passed over the Western Region's High Wycombe-Maidenhead branch, and, as I had been forewarned of this most unusual, if not unique, event, I went to Bourne End in order to record it with my camera. She arrived dead on time, at 11.30 a.m., and while the main party detrained I discovered that Mr. O. S. Nock was going on in the otherwise empty train, as he wished to alight at Maidenhead in order to catch a train to Reading where he could join a train to his home at Bath. This suited me very well, and I had the unexpected pleasure of accompanying him in the short run behind *Zeebrugge* to Maidenhead. The engine was turned out in immaculate condition, and I understand that this was entirely due to the efforts of the shed staff at Retford; when she had arrived there about a week before, she was in an indescribably filthy state, but at Bourne End she looked almost as if she had been newly painted !

The High Wycombe-Maidenhead branch is single line throughout, except for passing-loops at the stations; and Bourne End is a staff-exchange station. In my photograph, the driver can be seen holding the staff in his left hand, ready to drop it on to the " hook " just before running into the station; he would pick up another staff at the other end of the station, giving him authority to occupy the single-line section to Cookham.

At about 4.35 in the afternoon, I took another photograph of *Zeebrugge*, just after she had passed through Slough station on her way from Windsor to London; but at the moment of writing, this shot is still on the film in my camera, my Bourne End shot having been at the tail end of the previous film. I hope that, when it is developed, the Slough shot will prove to be satisfactory, because, once more, I doubt if an ex-G.C.R. " Director " has previously been seen on that particular stretch of the Western Region main line. Incidentally, the front end of the engine and each coach of the train carried a board with the legend " Northern Rubber Special."





CAVAN AND LEITRIM RAILWAY NARROW GAUGE COMPOSITE COACH

by A. J. Powell, B.Sc.(Eng).

IT is not often that narrow gauge rolling stock appears in the pages of THE MODEL RAILWAY NEWS, but the writer was fortunate in obtaining details of the Cavan and Leitrim Railway coaches for modelling purposes, and it seemed a pity not to make these available for other modellers who might have leanings in this direction.

The 3 ft. 0 in. gauge Cavan and Leitrim Railway (now a part of the C.I.E.) was opened in October, 1887, and the coaches, built that year, were and are some of the most attractive on the Irish narrow gauge lines. They came from the Saltley works of the Metropolitan Railway Carriage & Wagon Company (now Metropolitan Cammell Carriage & Wagon Company); Nos. 1 to 7 were composites, and 8 to 12 thirds. When the G.S.R. took over the line in 1925, these numbers acquired a suffix letter L.

The drawing mainly illustrates composite coach No. 1L, but except for the window and lamp spacing and disposition of droplights, the third class vehicles were externally similar.

The subsequent history of these vehicles is as follows:—

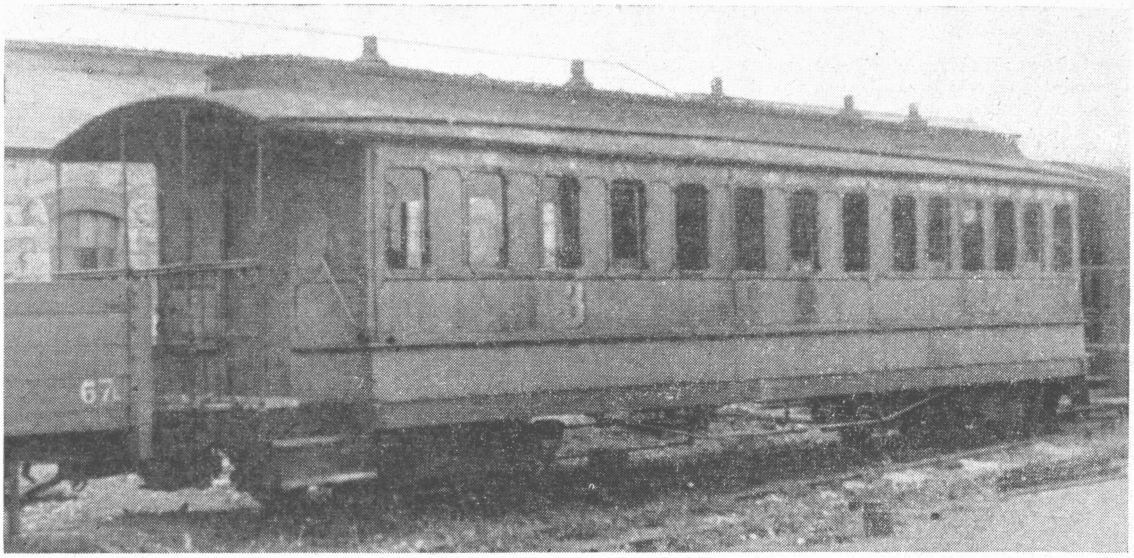
Nos. 8L, 9L and 12L were scrapped in 1943.
Nos. 2L, 3L and 10L were scrapped in 1950.
Nos. 4L and 7L lost their bodies for scrap in 1951, and the underframes are at present at Inchicore for body rebuilding.

The only vehicles remaining in service in essentially their original condition are No. 1L (composite) and 11L (third). Nos. 5L and 6L have been converted to brake composites, the larger first class saloon being stripped and fitted with a stove and side double doors for use by the guard and for luggage. These two coaches have also lost some of their charm as a result of having been flush-sheeted with aluminium over the old panelling.

The drawing should be self-explanatory as to dimensions, but the following notes apply:—

A. As built, plain bogies were fitted, with no external bolster swing links (as shown on left of side and end views), and third No. 11L still retains these bogies.

B. Composite No. 1L, and brake composite No. 5L, have modified bogies fitted with external swing links, as shown on right of side and end views. Due to the presence of the spring plank, there must have been some alteration to the vertical position of the bogie-mounted brake pull rods, etc., but no details are available. Brake composite No. 6L has a slightly different type of bogie, a volute spring being provided on each side between the swing links, with a bolster extended through the side plates of the bogie above the springs. I have details if anyone is particularly interested.



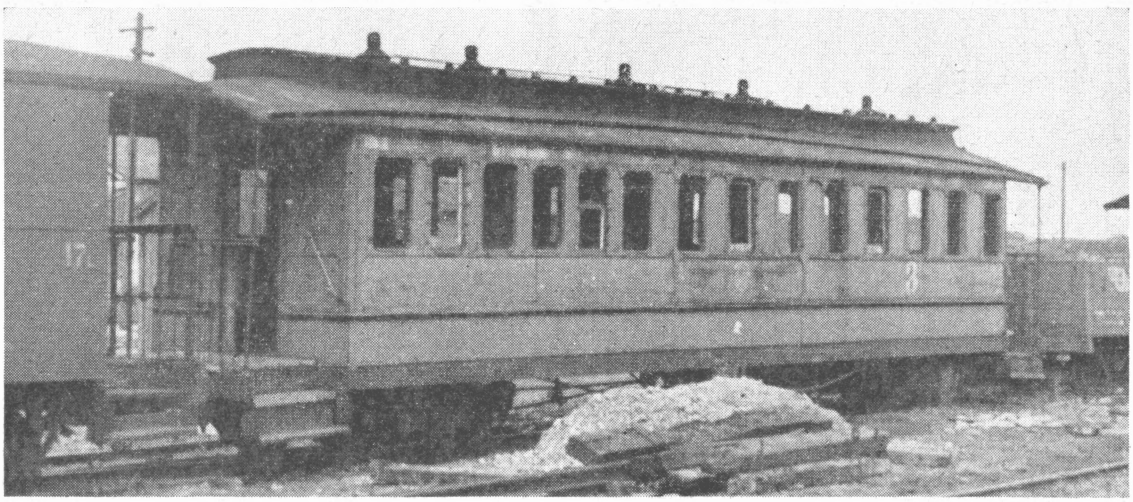
C. As built, the vertical side walls of the clerestory were fitted with window lights above each body side window. These have since been blanked up, and the clerestory now has the characteristic sloping sides.
D. The fitting of rainstrips on the roof does not appear to be universal.
E. The bottom panels of the inside and outside sliding doors originally had rounded corners, but now appear to be square.
F. The acetylene generator for lighting is mounted under one end platform, but details of size, etc., are not available.
G. The builder's plates on the solebars are at the third class side of the centre line on both sides.

From the modelling point of view these coaches are straightforward, though the roof ends and platform railings call for care if the " atmosphere " is to be preserved.

The photograph shows composite No. 1L at Ballinamore on a dull day in June, 1952, and is from the camera of my good friend, H. S. Orbach. At this time the coach was still in its Great Southern livery of red-brown, with crest, though looking very weatherbeaten. The two brake composite vehicles were painted in the standard C.I.E. dark green, with numbers and " Flying Snail " totem in light green.

Two excellent photographs of composite vehicles appear on p. 140 of Fayle's monumental book " Narrow Gauge Railways of Ireland," and other useful illustrations appear in *Railways*, for September, 1949, and *The Railway Magazine*, for May, 1951.

Finally, I am greatly indebted to Messrs. Metropolitan-Cammell Limited, for copies of certain original drawings, and to the C.M.E., C.I.E. for details of the subsequent history.



Second instalment of
D. A. Williams' article

BUILDING S.R. STEEL COACHES

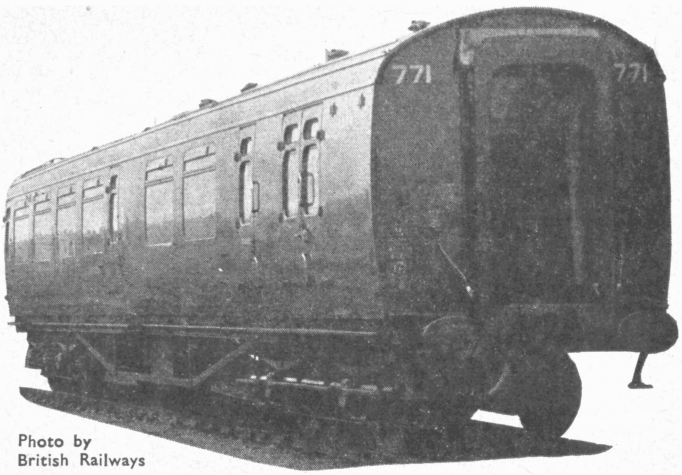


Photo by
British Railways

THE next move was to the erecting shop and the coach sides were built up into a box-like form using $\frac{1}{8}$ in. card for the floor and ends (see Fig. 4). Strengthening partitions were put in where possible and at this point internal fittings were added to taste. Roofs were of solid wood and only roughly planed to shape before fitting. A piece of thick card was cut to fit in the top of the coach and glued to the underside of the wooden roof. Note the roof overlaps at the ends to allow the bow-ends to be made after the roof is stuck on. Having made sure (like a surgeon after an operation) that all the innards were O.K. and no tools had been left inside the coach, the roof was glued on by means of the card rebate previously mentioned. It is always better to augment the glued joints with tiny lil pins (any large stationer will supply). These should be pushed in with pliers to about half their length and snipped off thus being invisible after the final coat of paint.

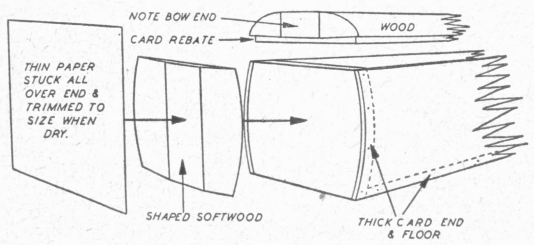
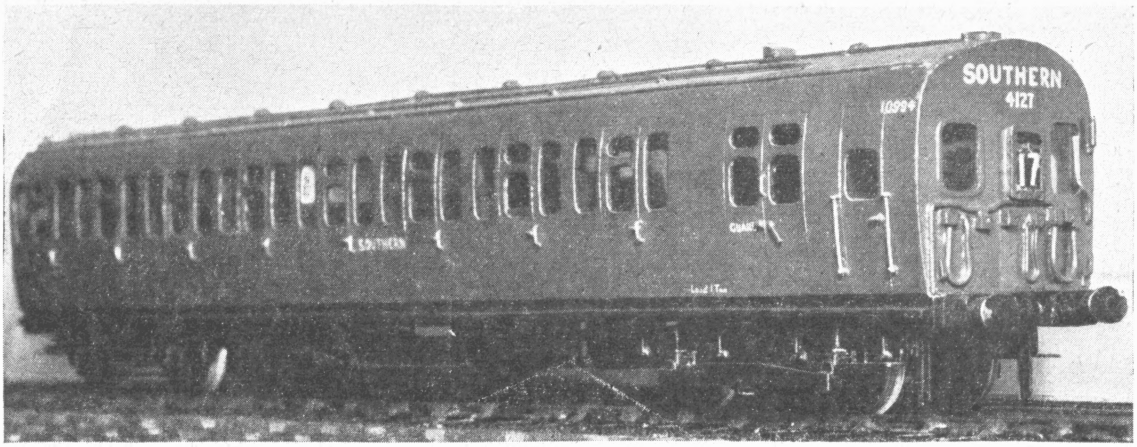


Fig. 4. Constructing the bow-ends

When fitting partitions, allowance must be made in the height for the card roof rebate. The roof was next planed to its proper shape using a template to get the curve right and this was easily made by placing a piece of 1/32 in. transparent sheet over the blueprint and scribing the shape of the coach end on it with a needle. This stuff, when bent, will break cleanly on the scribed lines and lo and behold the template is produced without any measuring at all, a process that always appeals to me. This method will be found a boon when transferring any odd curved shape from a blueprint.

Now for the bow-ends, and Fig. 4 shows a very simple way for this rather awkward job. A piece of softwood was shaped to the contour of the bow and glued to the end. When this was well and truly stuck, the roof was trimmed to the same shape, smoothed down with sandpaper, and a piece of paper



All steel electric motor-car

stuck over the whole lot. After drying, the paper was trimmed to the outline of the coach and it was found impossible to tell how the end had been faked up. N.E. and G.W. fans could use this method for tumblehome ends.

This completed the difficult part of the job and all that remained to be done were the underframe details and the bogies. Solebars and steps were fashioned from 1 mm. three-ply and all the usual fittings slung under the coaches. These were nearly all of metal and were soldered to the coaches as I find that small glued fittings usually fall off. I have a stock of very tiny steel brads about $\frac{1}{8}$ in. long and these were first inserted in the cardboard and the metal fittings soldered to them. Care is needed when inserting them for in one of the coaches a seat came adrift, and the job of sticking it down again using tweezers poked through a window, fortunately modelled open, put the art of ships in bottles right in the shade.

Electric Stock

Having finished a three-car set of steam coaches my baleful gaze was turned on the only lithos left, a two-car electric set. To my delight (laziness again !) the modern steel electrics had the same shape windows and doors as the steam stock and the same punch could be used. Blueprints were obtained for the 1946 steel four-car suburban units and it was noticed that the rain strips on the roof were shown

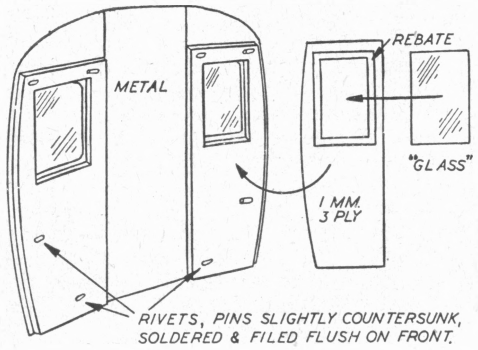


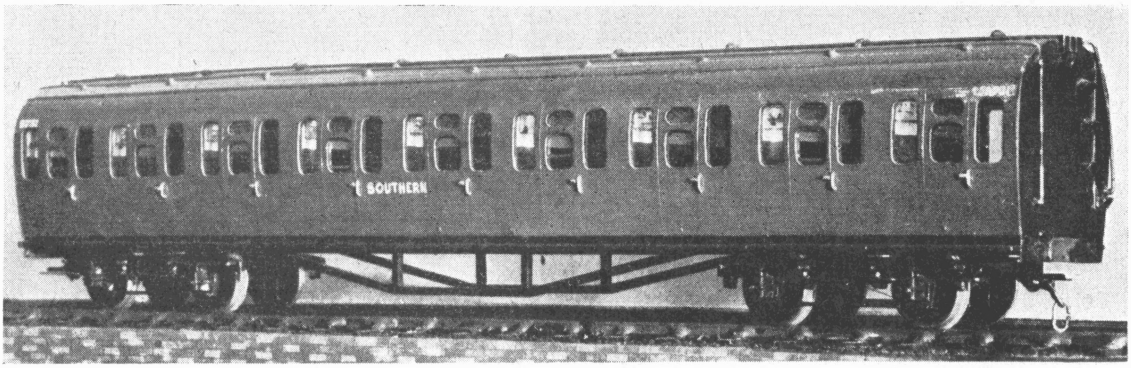
Fig. 5. The metal motor-car fronts

curved instead of straight, a nasty error that would spoil the look of the finished set. The characteristic feature of this stock is the way the steel side sheets are carried up into the roof in one piece as far as the rainstrip. This put paid to the usual method of using a solid wood roof. Therefore the sides were constructed in a similar way to the steam stock but a margin wide enough to include part of the roof was left above the windows. The wood former was also planed to include the lower part of the roof and when the usual three layers were stuck together the result was a side that curled in at the top (see Fig. 7).

To get a model S.R. electric to look right it is essential to model the motor-coach fronts accurately with neatly made jumper cables. If these cables are a bit on the big side the fronts look as if the fire brigade is drying out a few hoses. To get a clean finish the fronts were therefore made of nickel silver with a thin plywood rebate riveted on with pins to enable the card sides to be glued to them (Fig. 5). Window rebates were cut with a razor blade and the glass inserted before the riveting process. The heads of the pin rivets on the front were filed flat, covered with solder and rubbed down smooth with emery paper, effectively hiding them. The wood rebate was made in two pieces because the fronts are not flat but bowed. Wire of various sizes was used for the cables as examination of the prototype proved the cables to be of different thicknesses.

The headcode holders were tackled next and were built up as in Fig. 6 from sawn out sheet metal. The frame was soldered on the coach front and the white plastic backing pushed in afterwards, for if inserted first it is liable to scorch and finish up looking like an overdone rasher of bacon. The hole for the stencil catch was bored next and the catch secured by soldering a small washer inside the coach front. All that remained was to saw out the actual stencil with a piercing saw (17 is a nice easy number) and the headcodes were complete. All details were added to the motor-car fronts before building up the bodies because soldering small parts on an upended coach is like trying to repair a watch perched on the top of the Eiffel Tower.

The roof was a bit of a problem but the method



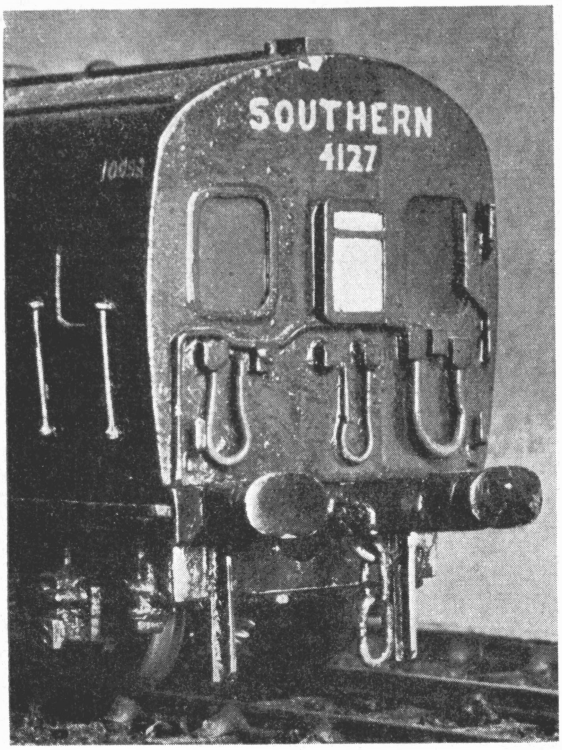
9 compartment steel trailer-car

shown in Fig. 7 proved to be the answer. The bodies were assembled in the same way as the steam stock using thick card for the floors and ends excepting, of course, the metal motor-car ends. The card ends were stopped short at the point where the sides start to turn into the roof (another glance at Fig. 7 will clarify this) and a wooden sub-roof planed to slide in under the curled over tops of the sides. In the motor-cars, one end had to butt against the metal fronts and was accordingly cut to a bow-end with a chisel before insertion. These sub-roofs were cut a bit on the long side and trimmed to length after gluing and pinning in position. This stage of assembly left a trough in the roof the same depth as the thickness of the sides and was filled in with three layers of card similar to that used for the sides. The three layers were cut, glued and pinned on separately and the top layer was well treated with shellac. When all was dry a rub down with flour sandpaper removed any slight ripples and the result was a roof that merged into the sides in a continuous curve. If the top layer is not well treated with shellac the result after sandpapering is what the razor blade people call a 5 o'clock shadow or a few whiskers. The join in the roof is, of course, hidden when the thin card rainstrip is stuck over it.

The Southern showed consideration to modellers by making all the coach ends flat other than the driving ends and these were masked in the same way as the steam coaches with a piece of paper. One point I have overlooked is the hole in the floor for the motor-bogie and this must be cut when fitting the floor as digging a grave for it after assembly is liable to be a bit destructive. An appalling amount of equipment is slung under the floor of the motor-cars : compressors ; airtanks ; fuseboxes ; banks of control resistances and what-not. Most of these bits and pieces were fitted on the models as they help to give the heavy illusion of the prototype. One point of interest gleaned from observation was that both front and back motor-cars are identical and therefore details that are on the left-hand side of one motor-car appear on the opposite side of the other when the two cars are formed up into a set. This feature seems to be standard for all types of stock and explains why the corridor in the steam sets usually changes sides at the brake-compo.

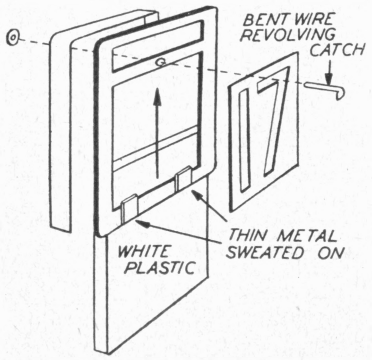
The buffing and coupling gear is rather unusual on the suburban units as there is but one central buffer between the coaches and the semi-permanent coupling is a plain three-link slung *below* the buffer-beam. Two buffers, of a special massive self-contained pattern and ordinary screw-couplings are fitted at the ends of the sets. Another trap for the unwary lies in the design of the motor-bogies. On the suburban units they are built up with a deep steel plate side and the old Zenith bogie was more or

(*Continued on page* 174)

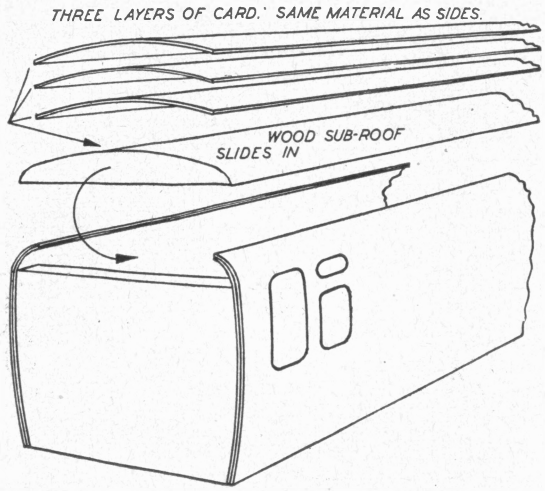


Close-up of motor-car front

Right.— Fig. 6. Headcode details



Below— Fig. 7. Roof details of the electrics



This is "O" GAUGE

REVERSING THE CM3: NEW SURPLUS MOTOR

by M. H. Cox

I MUST start this month with a brief apology for the absence of any article in the July issue. This was, I am afraid, beyond my control owing to illness, however, I hope the good work can now continue without further similar interruptions.

Before we finally leave the type C.M.3 motors behind us there are one or two points which have cropped up, that seem worth mentioning. Especially is there one, for which I claim no credit whatever, that seems to possess some very valuable features. I am indebted to Mr. Churley, of Fakenham, for bringing this idea to my attention, and I am passing it on to you with the advice that I think it is a better way of reversing the motors than the purely rectifier system which I advocated earlier. This scheme combines the rectifier, and the polarised reverser, but has, so far as I can see, none of the disadvantages of either system except that it is, perhaps, more extravagant of space. Mr. Churley tells me he has used this rectifier/relay system in several locomotives, and enclosed photographs of a tender engine so fitted. The motor was a C.M.3, and motor, rectifier, and relay are all mounted in the locomotive, the tender being the usual decorative tin can. I have no fault to find with this system, which has several advantages over the tender mounted motor, but the chopping about that must be done to the motor to make it fit the engine bodywork is beyond the scope of many of you good people. Anyone who feels confident to chop the motor about *ad lib.* can probably devise his own way of doing the job, and doesn't need me to tell him how to do it!

However, for the larger types of tank locomotive this rectifier/relay system is ideal as there is considerably more space available for the various bits and pieces. The method by which the reversing is carried out should be quite clear from the wiring diagram reproduced here. A baby half wave rectifier, capable of handling about 150 milliamps is connected in series with the magnet winding of a relay. It should, I think be clear that current can only flow through the relay when that current is favourable to the rectifier polarity. Current in the opposite direction is stopped by the rectifier, and the relay cannot be energised. The armature of the relay is arranged to operate a reversing switch, which in turn, reverses the main traction motor of the engine.

(*Continued from page* 109, THE MODEL RAILWAY NEWS, *May*, 1953).

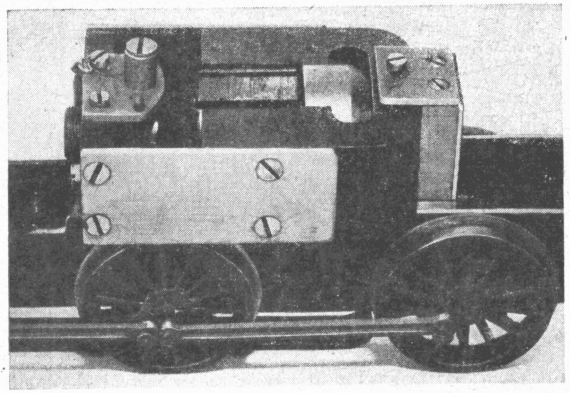
The enormous advantage of this scheme, of course, is that both field and armature of the motor receive the same potential. As we discussed last time, the rectifier of my system caused a voltage drop in whichever circuit it was employed, and this drop upset the motor's designed characteristic. The voltage drop across the motor, as a whole, caused by the rectifier/relay system in series with it is quite negligible, certainly unreadable on the usual meters employed on model railway power units. The resistance of the relay depending on the type, will be between 400 and 600 ohms—the maximum voltage is 25 V. If you apply Ohm's Law you arrive at

$$I = \frac{E}{R}$$

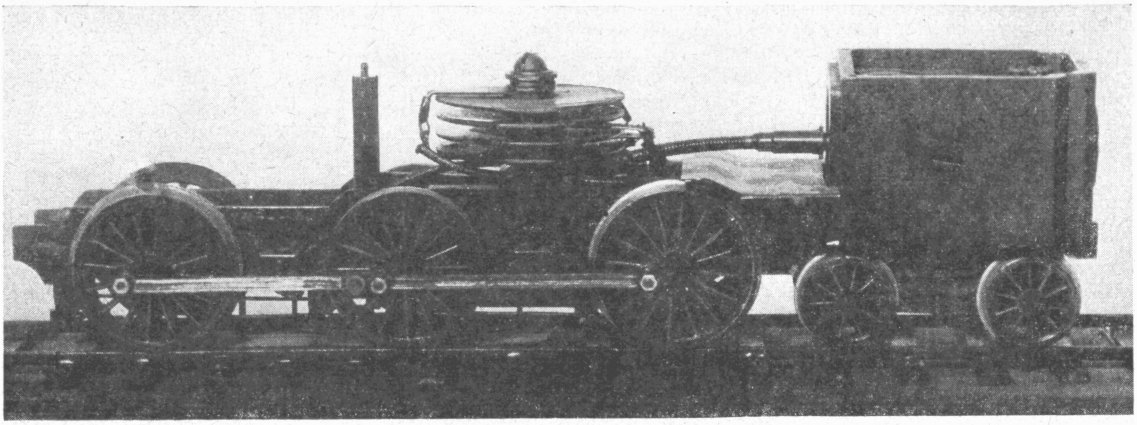
$$\therefore \quad I = \frac{25}{500}$$

$$= \frac{1}{20} \text{ amps}$$

or 50 milliamps, and this isn't likely to affect anything very much. In fact, owing to both field and armature of the motor receiving their proper current, the motor will develop its full power at a lower voltage than with the rectifier system, and the voltage required to run your locomotive should accordingly be reduced. I have tested out this



The CM3 converted to permanent magnet operation

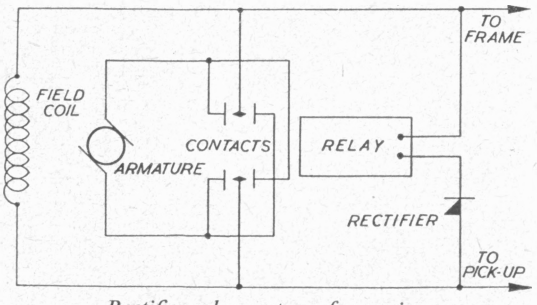


Works of a Midland 0-6-4T *with square type motor*

system and there is an improvement over the rectifier system, and reversing was quite positive on all occasions. Only one snag did reveal itself: any break in the supply when the relay is in operation, causes the relay contacts to open, and close again when supply is resumed. I understand it had a most impressive effect on my neighbour's television set ! This, obviously, is something else that will have to be suppressed.

I cannot, I am afraid, show photographs of a chassis fitted with this reverser. My experimental one was a horrible lash up on an old tender frame with four wheels, that I use as a test bed. It couples up to the N.E. 0-8-0 and often exceeds the loading gauge by many scale feet ! Both the relay and the rectifier, incidentally, are ex-G.P.O. equipment and are readily obtained on the ex-Government market. The relay is known, I believe, as a type 600. These are 250 ohm resistance. The type I have by me is 400 ohm. The rectifier, I think, might best be mounted at some convenient place between the frames, it being necessary, probably, to remove some of the spacing washers at each end of the gadget. It could almost be built in as a permanent part of the chassis, but personally, I distrust electrical toys of this type, and prefer to have it removable. It might be made to replace one frame spacer.

And now, before we finally leave the C.M.3 motor, here is a photograph of one that has been converted to permanent magnet operation. This particular one is about ten times more complicated than it needs to be, it was made in the days before I knew that ball races could have snags when used in this type of motor. The cumbersome chunk of metal at the closed end of the magnet is merely a housing for a $\frac{3}{16}$ in. diameter ball race. On later motors a phosphor bronze bush was pushed into the hole in the magnet bridge, and that provided a very satisfactory bearing. The magnet, incidentally is an old type Romford " O " gauge type and is very suitable for the job.



Rectifier-relay system of reversing

On the motor illustrated, I thought it would be clever to reduce the air gap between magnet and armature by fitting their pole pieces. By a quite remarkable bit of fitting, I managed to obtain an air gap of only 5 thou. This was an even more remarkable waste of time, because the working of the motor was utterly ruined—it was an almost certain non-starter, and, once started was a very poor performer. Without the pole pieces, the air gap does look excessive, but the motor behaves extremely well and is most docile when starting.

The other photograph shows the works of the Midland 0-6-4T. You will notice that the motor is not a C.M.3 type. It is, in fact, a square box of a motor, with skew armature and non adjustable ball bearings. The brush gear is also quite different. I understand, however, that the motor was built to the same specification but by a different firm, which seems likely because all mounting screw holes are in identical positions to the C.M.3, and the shaft centre height is likewise identical. This arrangement of motor and rectifier is suitable for certain classes of tank engine having large bunkers. The motor location, of course, is equally suitable for use with the relay system, the relay and its rectifier being fitted in whenever possible.

That I think has now covered about all the possible aspects of the type C.M.3 motors. When I talk about C.M.3 motors I mean, incidentally, all those motors, whether 12 or 24 volt, that I originally called " little grey motors." If any one else has any bright ideas about using these, or any other

motors, let's hear about them; either write to me, and I'll pass on the good news, or, better still, write about it for publication yourself. Whatever you do though, don't keep original ideas all to yourself, let others gain from your experimenting. Mr.Churly, who suggested the rectifier/relay system, works, I understand, on the automatic telephone exchange, and so has the necessary experience with this class of equipment to think out this reversing system. Others of you may be in equally suitable positions to think of something else. Anyway, if you have any ideas, don't hide your light beneath a bushel; let others hear about them.

And now for the new type of motor that we are to deal with next. This motor is obtainable from a number of ex-Government supply stores, especially from Messrs. Aero Spares, of 70/71, High St., Holborn, London, W.C.1, who list them as model makers' motors, priced at 10s. each. That reminds me, incidentally, that I had a letter from Mr. D. M. Rogers, 2, Matlock Avenue, Southport, Lancs, who tells me that he has stocks of the C.M.3 type motors. He also sent me a copy of his stock list, and it contains a considerable quantity of materials and so on of use to any model engineer. Mr. Rogers is himself a model engineer and will have, no doubt, helpful suggestions to offer should stocks of anything be scarce.

To revert to the little motors, these are circular in shape, 2 in. long and $1\frac{3}{4}$ in. diameter, on one end is a small pulley, and the other end has a metal cup-shaped cover. Removal of this cover reveals a circular black disc with a pair of spring contacts embedded in it. This is a form of electrical governor and must be removed. In fact, most of this motor has to be rejected in the case of this conversion, as we are not going to use the field magnet. Instead, we are going to use the armature in conjunction with a small type of permanent magnet. It will, therefore, be in order to strip the motor completely, and this entails removal of the governor disc. This is a push fit on the shaft, and must be pulled off, a feat requiring some force. Don't worry about the two little wires embedded in the shaft at this stage—they must be removed later, anyway.

Summer weather brings out the garden railway enthusiasts

The magnet I have chosen for this conversion is the old type Leeds Model Company magnet. I have chosen this because many people seem to have one or two of these lying around in the scrap box, or sometimes burnt out mechs. can be obtained for a shilling or two.

Since we have very little more space available this month I will not attempt to start the description of the conversion, but will merely say that, despite the very small size of the armature of these motors, ample power is available for an " O " gauge locomotive. My own conversion, with a very tired magnet, can haul eight Exley bogie coaches and sixteen goods wagons round a continuous track having curves of 5 ft. 6 in. radius, and some gradients Slow running and starting are excellent and the current consumption is very modest—below 1 amp even on starting a full load. We will continue with the motor conversion, and cutting out the frames for our D1 tank next time, so it will be as well to obtain a good drawing of the locomotive.

(*To be continued*)

BUILDING S.R. STEEL COACHES

(*Continued from page 171*)

less correct, though even this was a scale 3 in. short in the wheelbase. Hamblings side is only suitable for the main line units and for my set a dummy bogie was built up from sheet brass and some carved about tender axleboxes.

That completes the main constructional details but perhaps a final note on the painting would not come amiss. The sides were given two more coats of green in addition to the pre-assembly coat. Flat paints were, of course, used for the underframes, coach-ends and roofs and Johnson's camera black proved to be a very good flat black. To avoid a drunken look in the lettering, twin guide lines were drawn in the lettering positions on the sides using white poster colour in a mapping pen. A thin dusting of Fuller's earth (see the chemist) made sure it took on the glossy surface of the sides and the actual lettering and numbering was done with yellow oil paint applied with a very fine brush. When dry, a rub with a damp rag removed the water-colour lines but, of course, had no effect on the oil-based lettering. Finally, came the varnishing, always a bit of a problem in 4 mm. scale as most of the model varnishes seem a bit on the gummy side and I think that clear Chinese lacquer fills the bill. It is quite thin and can be further thinned with turps and dries quite hard in 24 hours. I hope it is not really necessary for me to add that only the sides should be varnished, leaving roof, coach ends, underframes and bogies dull.

"THE MODEL ENGINEER" EXHIBITION, 1953

Model railway enthusiasts should make a point of visiting the stands listed below

Bradshaw Model Products, Ltd. **Stand No. 9**
5 and 6, Western Road, Hove, 2, Sussex

A full range of imported " Rivarossi " equipment will be shown, together with a range of " Acro " products and many other items of interest to " OO " gauge modellers. The photograph reproduced on this page illustrates one of the electric " Rivarossi " locomotives which is obtainable from this company.

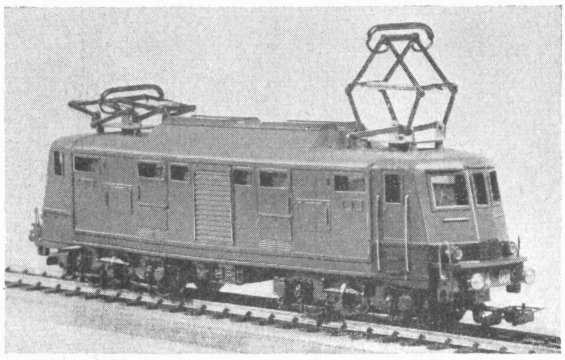
Buck & Ryan Ltd., **Stand No. 8**
310/312, Euston Road, London, N.W.1

As usual, this company will provide a complete range of machine and hand-tools covering every workshop requirement. All equipment on the stand is for sale, from lathes and bench drills down to the smallest spanners and pliers so useful to railway modellers. Look out for the " Eclipse " magnets on this stand. They measure $\frac{5}{8}$ in. diameter $\times$ $\frac{11}{16}$ in. high, and have many uses.

Hamblings, **Stand No. 34**
10, Cecil Court, Charing Cross Road, London, W.C.2

Model railway parts and accessories for 16.5 mm. gauge will be on sale. Type " B " Hambling track will be shown made up into all the standard point formations including " Y " parallel points.

" Bilteezi " cards and " Scalesig " signal parts are two more of the well-known ranges shown. This year the new Hambling catalogue has been divided into two sections for greater convenience. The main part dealing with all mechanical types of model railway parts is 1s., and the second part, listing scenic items, is priced at 9d.



Italian State Railways electric locomotive in the " Rivarossi " range available from Bradshaws

Kennion Bros. (Hertford) Ltd.,
2, Railway Place, Hertford
Stand Nos. 27, 28 & 29

This stand will be of interest to live-steam enthusiasts, whose needs are well catered for by Kennions. Many castings, materials and tools for steam locomotive construction are obtainable from the stand including a special range of 60- and 40-thread taps and dies. Demonstrations of boiler brazing and the uses of various silver-solders will take place throughout the duration of the exhibition.

Percival Marshall & Co. Ltd., Stands Nos. 10 & 11
19-20, Noel Street, London, W.1

Publishers of THE MODEL RAILWAY NEWS and organisers of " The Model Engineer " Exhibition. Current numbers and some back numbers of all P.M. periodicals will be available. The whole range of P.M. books, concerning model engineering and model railway subjects will be displayed in classified groups for easy reference.

In addition, don't forget to visit the special **" Model Engineer " bookstall** near the club centre, where you can find details of a fascinating competition open to all.

H. Rollet & Co. Ltd., **Stand No. 49**
6, Chesham Place, London, S.W.1

For the first time in their exhibition history, this company will be able to offer for sale on the stand many types of metal for model makers. Apart from a display of specimens of rod, sheet, tube, bar, angle, channel and tee in brass, copper, phosphor-bronze, nickel-silver, gunmetal, aluminium and light alloys, a range of copper tubes for boilers will be available for purchase.

Walkers & Holtzapffel Ltd., **Stand No. 3**
61, Baker Street, London, W.1.

On this stand you may inspect the whole range of Romford mechanisms and the " O " gauge controlled clockwork mechanisms. A complete range of model railway equipment will be on show,

The W. & H. combined sleepers and chairs for " OO " gauge can be purchased. These sleepers, made of plastic, have the chairs moulded to them. Gauge setting is automatic and curves of any radius can be laid.

Talking Shop

ROVEX PLASTICS LTD., of Richmond, Surrey who manufacture the TRI-ANG railways marketed by LINES BROS., are now producing a very creditable 2-rail model of the L.M.S. Class "3F' 0-6-0 standard shunting tank.

For only 29s. 6d. you get one of these tankers packed in a bright box, complete with a clearly illustrated maintenance sheet and a bottle of oil. The plastic superstructure is a fine piece of moulding and the mechanism is easily detachable for cleaning and oiling. The motor, which runs very quietly, bears some resemblance to the Zenith X3, the main difference being that a drum type commutator is used.

It is a pity from the serious modeller's point of view that the wheels are too coarse to run through B.R.M.S.B. points (back-to-back is approx. 13.5 mm.), but they will run on practically any other type of track including Wrenn's, although someone will, I expect, fit other wheels with success.

However, the real virtue of the locomotive and indeed of the whole Tri-ang railway system is its low price range which will undoubtedly start off many beginners who would previously have been discouraged by high prices. Tri-ang railways is a comprehensive model railway system, and is mainly designed for the operator who requires a completely flexible and portable system, which can be laid out on a table and easily taken up again. These characteristics, plus the reasonable prices will make Tri-ang railways attractive to newcomers, young and old.

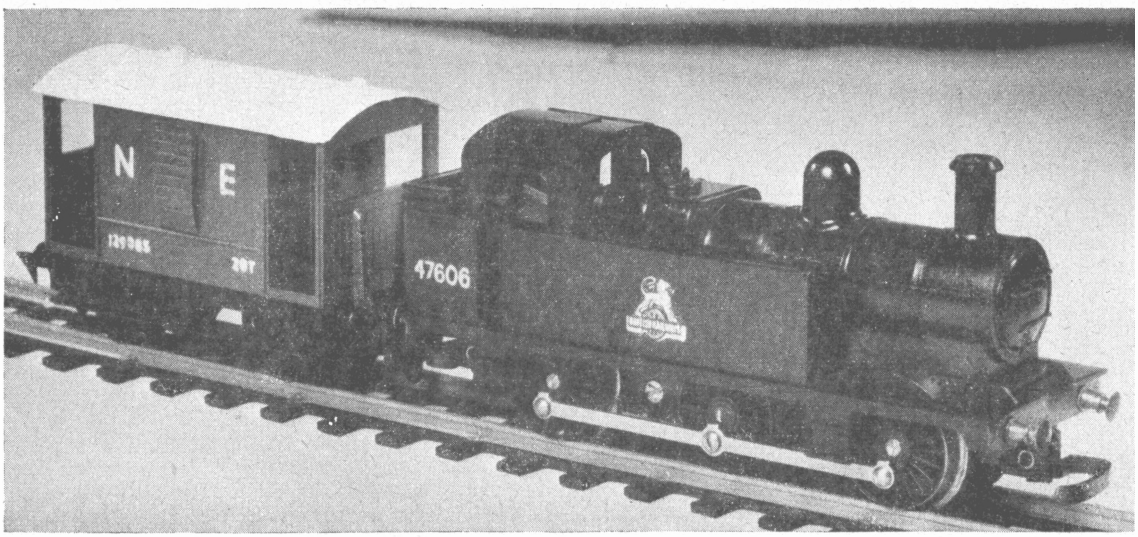
Rovex are also proud of their N.E. brake van shown next to the locomotive. They tell me that the manufacture of the body represents a special achievement in plastic moulding and shows an interesting application of modern plastics technique to model railways. The price, 4s. 8d., seems another special achievement. Tri-ang Railways are available from most of the leading retailers.

Dummy Colour-lights

New MASTER MODELS now on the market include several cast colour-light signals shown in the photograph herewith. These are non-working signals having a realistic appearance and they can fulfil a very useful purpose.

Many modellers have no interest in signalling from the operational angle; they consider it most irksome to be pulling levers in setting up a signalled route for their trains ! At the same time they readily admit that a layout without any signals at all looks bare and incomplete. Unfortunately, in the case of unworked semaphores the indication is obvious, and any railway-minded person would feel instinctively uncomfortable at seeing a train pass a "home" in the "on" position ! This is where dummy colour-lights come in, for the aspect required at any particular time can be left to the imagination, whilst, with the modest price of these signals, the equipping of a layout would be within the means of the average model railway owner.

The 2-arm electric banners are supplied at 3s. per pair; a pair of 3-aspect signals, costs 3s.; the



The Rovex 0-6-0T *and N.E. brake both have excellent superstructures in moulded plastic*

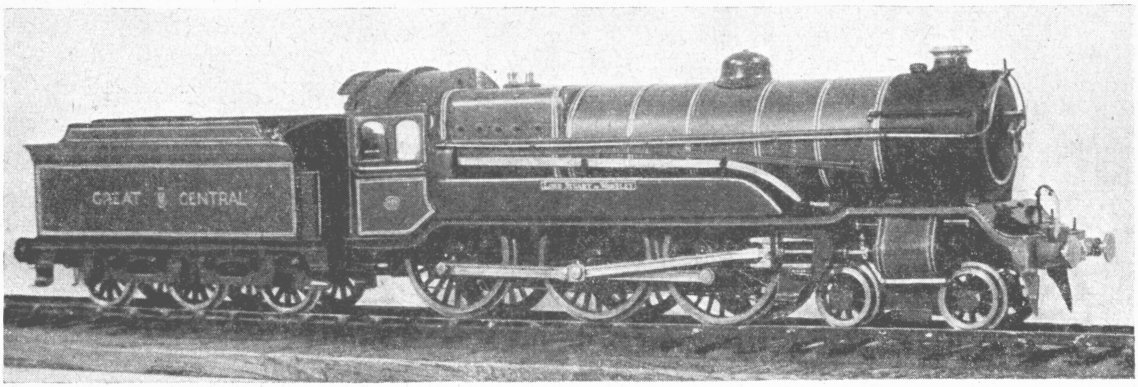
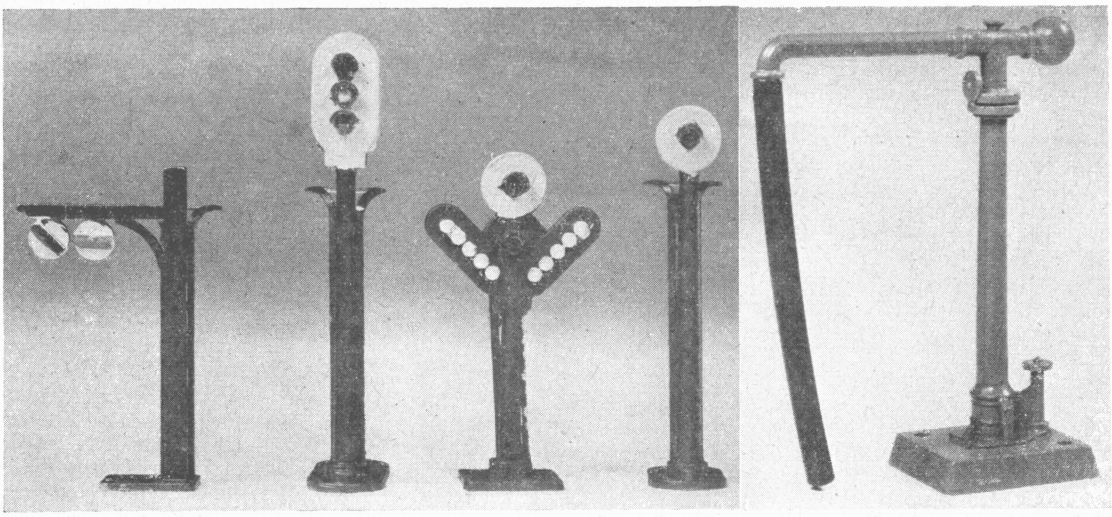


Photo. by] *EM Gauge "Lord Stuart of Wortley" made by Cherry's (Surrey) Ltd.* *[Stefan Photography Ltd.*



Master Models, Dummy colour lights and water crane

searchlights with junction indicators are 3s. 6d. a pair, and the plain searchlights are 2s. 9d. a pair.

The water crane shown alongside the signals is another excellent scale model, except perhaps for the "bag" which hangs rather unnaturally. The arm swings across the tracks, the castings contain sufficient convincing detail and are finished in a brownish red-oxide. The price is 2s.

Master Models are marketed by B. J. WARD LTD., of 130, Westminster Bridge Road, London, S.E.1., and they are obtainable at many retailers.

"Lord Farringdon" class in E.M.

CHERRY'S (SURREY) LTD., of Richmond, built the well finished G.C.R. 4-6-0 engine and tender *Lord Stuart of Wortley* shown above. The engine, which is to 4 mm. scale on 18 mm. gauge, was built to the special order of Mr. K. R. Shaw of Manchester. Nickel silver is used throughout and power is provided through a specially constructed 5-pole mechanism equipped with a flywheel. The driving wheels are sprung and two-rail electrification is employed. The engine is finished in the correct livery and lining. Sprung buffers and couplings are fitted.

New Skinley Catalogue

The tenth edition of the "Skinley" catalogue has come to hand and it is much larger than any previous edition. Numerous additions have been made in all sections covering every aspect of the model railway hobby. Anyone requiring drawings of locomotives, rolling-stock, signals, buildings, trackwork, scenery, and many different kinds of ships, should have a copy of this catalogue to refer to. It costs 10½d. post free from JOHN E. SKINLEY, 132, High Street, Southend-on-Sea, Essex.

NOTES OF THE MONTH

Talyllyn Railway Appeal

The Talyllyn Railway is, in some respects, a real-life counterpart of the *Titfield Thunderbolt*; its continued existence is being striven for by the Talyllyn Preservation Society, formed specially for the purpose, and its story is a continuing epic, in that the goodwill and enthusiasm of all concerned are, together, the driving force behind the whole schemes.

The society has been presented with a wonderful chance of progressing with urgent track-relaying work. The Territorial Army Engineers Unit, through the co-operation of the chief engineer, Western Command, has undertaken to relay about two miles of track, during the T.A. summer training programme. The society has had to find the materials, however, and is not able, unfortunately, to meet the cost. A special appeal is made to anyone interested to forward a donation to either Mr. W. G. Trinder, 84, High Street, Banbury, Oxon, or to Mr. P. J. Garland, 36, Waterloo Street, Birmingham, 2. The sum required is now about £650, since more than half the total of £1,500 has already been subscribed.

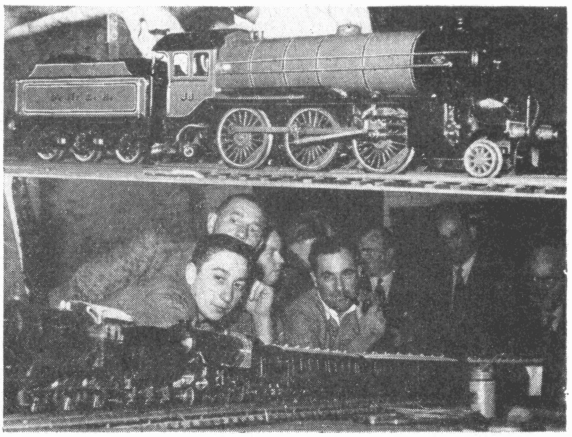
The "M.E." Exhibition

We would remind readers that *The Model Engineer* Exhibition at the New Horticultural Hall, Westminster, S.W.1, opens on the 19th of this month and lasts until the 29th, excluding Sunday, the 23rd. Models of all kinds will be on view, and there will be the usual increment of model railway exhibits in the competition and trade sections as well as among the loaned models.

Apart from this, however, the exhibition is always well worth a visit by anyone interested in modelling for its own sake; it includes the cream of the work of the model engineers in this country, and the quality of their work is steadily improving from year to year. The demonstrations alone are bound to give useful hints to visitors who might be seeking information as to how, for example, brazing and soldering are done; each demonstrator is an expert in his own craft, and much can be learned by just watching the work being done. So we hope that readers who can, will make a point of visiting the exhibition.

Third Birmingham Conference (1953)

This event, arranged jointly by the Model Railway Club and the Manchester Model Railway Society, is to be held on Sunday, October 4th, 1953, at the "Imperial Hotel," Birmingham, commencing with lunch at about 1.15 p.m., following with a short business session, and closing with a general discussion and get-together over the models brought along, during which afternoon tea will be served. All clubs are invited to send one or two representatives (accommodation is rather limited, but no interested clubman will be ejected !). Notifications, stating whether lunch is required, should be sent to Mr. D. A. Boreham, hon. secretary, M.R.C., at 34, Shrewsbury Road, London, N.W.10, before September 23rd, 1953, together with any item of business your club wishes to introduce. Each delegate is expected to bring *at least* one model.



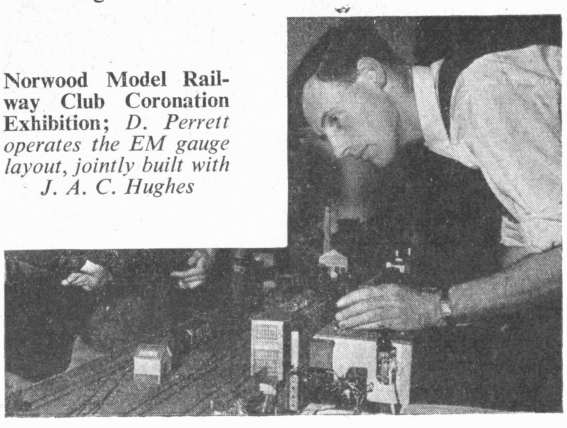
Gauge One Track Night at the Model Railway Club: *Top : K. R. Herring's L.N.E. Steam Mogul. Bottom : Keen faces watch a double-headed express.*

Mr. H. A. Blunt

We regret to announce the death, recently, of Mr. H. A. Blunt, the well-known model retailer of 133, The Broadway, Mill Hill, London, N.W.7. He was 53, and during his 3½ years in the model business made many friends amongst the trade and customers.

The company is a member of M.E.T.A. and will continue to operate under the direction of his wife and two sons.

Our cover picture for January, 1952 featured the 6 ft. × 4 ft. layout erected by Mr. Blunt in his Mill Hill shop for the encouragement of railway modelling.



Norwood Model Railway Club Coronation Exhibition; *D. Perrett operates the EM gauge layout, jointly built with J. A. C. Hughes*

WITH THE CLUBS

The Model Railway Club

The Gauge " 1 " track night on July 2nd provided a lively meeting when the sight, sound and smell of steam locomotives kept a good crowd round the track right up to the last train.

Attention is drawn to the announcement elsewhere in this issue, of the 1953 Birmingham Conference.

August 20th is an all groups track night—a good show of models is anticipated.

Meetings commence at 7.30 p.m. in The Ambulance Room, Waterloo Station, London, S.E.1.

Particulars of the club may be obtained from the hon. secretary: D. A. BOREHAM, 34, Shrewsbury Road, London, N.W.10.

The Stephenson Locomotive Society

The society has arranged an interesting rail tour by special corridor train including refreshment car, on September 12th, which will cover a unique route round the northern and western home counties, including connecting lines not normally traversed by passenger services. The starting (2.15 p.m.) and finishing point (7.12 p.m.) will be Kensington, Olympia, station on the erstwhile West London Joint Railway and the route will be: Willesden (High Level), Gospel Oak, the connecting spur from Crouch Hill to Harringay West, G.N., down the East Coast main line to Hatfield, thence Dunstable, Leighton Buzzard, a short stretch of the West Coast main line, the Bletchley avoiding line, along the former L.N.W.R. Oxford branch, over the Calvert connecting link to the old Great Central, so through Aylesbury on to the Western Region via High Wycombe & Maidenhead, up the Brunel main line to Hanwell, returning to Olympia by way of the Greenford loop to North Acton and Wormwood Scrubs.

The itinerary has been arranged to permit the use of one locomotive throughout and it is hoped that British Railways will provide one of their latest standard types not normally seen in the London area. The fare will be 16s. and early application for tickets is advised. Remittance with stamped addressed envelope should be addressed to: Stephenson Locomotive Society, 4, Temple Fortune Court, London, N.W.11. Distribution of tickets and time table will take place about the end of August. For operating reasons the length of train and seating capacity will necessarily be limited.

Talyllyn Railway Preservation Society

Coronation Day at Towyn was a day to be remembered by 110 school children, who travelled on the specially decorated morning train hauled by No. 4 *Edward Thomas*. The trip was free and the children were issued with special red, white and blue souvenir tickets. This contribution toward the Coronation festivities of the district was featured in the Television Newsreel on Wednesday, June 3rd, and repeated in the omnibus edition the following Saturday.

From June 29th to July 9th, the line from Brynglass to Abergynolwyn will be closed. No. 127 Construction Unit R.E. (T.A.) of Smethwick will be relaying the track between Brynglass and Quarry Siding. They will also rebuild the parapet on the Dolgoch Viaduct. This work, forming part of the unit's annual training, will be of inestimable value to the society. The society has, however, to supply the materials for this operation and about £650 has been raised. This is very good, but unfortunately not enough. So a special appeal is made to anyone interested to contribute to this special fund, as announced elsewhere in this issue.

The two coaches donated by the Penrhyn Quarry Limited, are in course of conversion at Pendre. Catering facilities, including sale of ice cream and chocolate are available at Wharf and Abergynolwyn Stations. The waiting room at Wharf Station has been renovated and reorganised.

The following items of interest are available on application with the necessary cash to:—Mr. R. K. Cope, " Brynglass," Beckman Road, Pedmore, Stourbridge, Worcs: Coronation Special Tickets, 1s. 2d. each, including postage; New Talyllyn Railway Guide, 1s. 2d. each, including postage.

A diesel railcar excursion from London to Towyn is being arranged to visit the Talyllyn Railway on Saturday, September 26th next. The car will leave London (Paddington) at 6.50 a.m., and will probably pick up at Greenford and High Wycombe; arrival back at Paddington will be about 7.30 a.m. on Sunday. All those interested in participating should apply for full details without delay, to Mr. T. W. Robertson, 23, Portway, Ewell, Surrey, enclosing s.a.e. for reply.

Manchester Model Railway Society

The society was privileged to take part in an unusual but most enjoyable form of Coronation celebrations arranged at Newton Heath M.P.D., Manchester, by the Locomotive Superintendent, Mr. G. F. Horne, during the three days June 3rd to 5th.

The shed, suitably decorated, and with a very striking entrance archway, designed and built at Horwich Works, was opened to the public, and all members of the shed staff—a notably " happy " shed—co-operated to make the event a great success.

In the staff canteen, largely taken over for the purpose, was staged an exhibition of about 60 models in 4 and 7 mm. scales by the society, and there were various 3½ in. and 5 in. live steam models by private individuals. One end wall was covered with pre-grouping crests and the whole was " dressed " with beautiful blooms grown by Driver Foster.

For the irrepressible youth, a class " 5XP " and an L. & Y. 0-4-0T " Pug " locomotive were drawn up out of harm's way from the running lines, and drivers explained everything. It is estimated that several thousand people passed through the exhibition, which apart from being the shed's private celebrations, provided an excellent example of public relations.

Wednesday, June 3rd, was " Children's Day " with a programme to suit, and Thursday, the 4th, was devoted to the retired workers of the shed, each member being entertained to light refreshments and a concert by the shed brass band.

The members of the M.M.R.S. made many friends and were very appreciative of the privilege of being included in the week's events.

Hon. Secretary: W. H. TATE, 64, Poplar Grove, Sale, Manchester.

Leicester Model Railway Group

The next meeting will be held in the hall of the Church of the Martyrs, Westcotes Drive, Leicester, at 7.30 p.m., on Tuesday August 18th, 1953, when Mr. P. A. Johnson will give a talk on " Electrical Control for Model Railways."

Our thanks are due to Mr. King for the recent visit to his garden railway, and also to Mr. Jarvis for his excellent talk on the " Denver & Rio Grande Narrow Gauge Railway," and the photographic slides with which it was so vividly illustrated.

The club room is now ready and the " OO " and " O "-gauge tracks will be assembled for the use of members in the near future.

Hon. Secretary: E. P. M. HAIRS, 24, Park Hill Drive, Leicester.

The Enthusiasts' Club

The following rail tours organised by the Enthusiasts' Club (Farnborough) are open to non-members. Both will include travel over lines normally closed to passenger services.

Tour No. 1 will take place on Sunday, September 6th (provisional date) and will be by G.W. diesel railcar, starting from Farnborough Station (S.R. main line). The car will travel by way of Sturt Lane Junction (West curve), Ascot and Reading, there to commence a tour of Western branch lines in the area formed by the Oxford-Princes Risborough-Reading triangle, returning to Farnborough by way of Ascot. Final details are not yet available, but those interested should write to the hon. secretary, enclosing a stamped addressed envelope.

The second tour will be by special train on Saturday, September 26th, hauled by the last remaining ex-L.S.W.R. S11 class locomotive 30400. Picking up at North Camp and Guildford stations, the train is to proceed down the Tongham branch (closed to passenger traffic over 20 years ago), and then via Ash and Aldershot to Bentley and down the Bordon branch; tour by special train of the Longmoor Military Railway, and visits to works and sheds; the " special " will then return to Guildford. The fare (inclusive of itinerary) will be 11s. 6d. Departure times and full details are available from:—

Hon. Secretary, H. DAVIES, " Lynmouth," Sycamore Road, Farnborough, Hants.

Please enclose a stamped addressed envelope.

Didcot Society of Model & Experimental Engineers

This society has recently been formed to cater for the most popular branches of model engineering. At present, the majority of our sixteen members are model railway enthusiasts whose interests range from 3½ in. gauge live-steam models to " OO "-gauge layouts.

We meet at the Didcot Community Centre, Station Road, Didcot, where we have been very kindly offered the use of a large room when a new extension has been completed. When club funds permit, we intend to construct a layout and also to equip the room with our own lathe, etc., for the use of members.

We have been invited by the Didcot Arts and Crafts committee to take part in their exhibition, which will be held from October 28th to 31st next. We shall be exhibiting models, of all gauges, and hope to have some of them working, if not under steam, then at least by compressed air. A " OO "-gauge layout, 8 ft. by 4 ft. is being specially constructed for the exhibition.

Our meetings are, at present, held at 8 p.m. on the third Tuesday of each month; the next two will be on July 21st and August 18th.

Hon. Secretary: M. SPRY, 10, Hagbourne Road, Didcot, Berks.

Ickenham and District Society of Model Engineers

The Society held its Annual Exhibition at Ickenham Village Hall on June 20th. Stands were provided by the Hammersmith Ship Model Society, Northolt Model Railway Club, Talyllyn Railway Preservation Society and Messrs. Redstock of Ruislip Manor. These stands, together with a very fine model of *Britannia* provided by the Railway Executive helped to make the show a very varied and interesting one.

The society's small-gauge section demonstrated for the first time their perfectly scenic " OO "-gauge layout, which is entirely automatic in operation. It ran all day going through its detailed evolutionswithout a hitch. Mr. Redway again showed his " O "-gauge L.N.E.R. J39 which with a total load of nine bogie coaches covered 7½ miles running during the day.

Northolt's " OO " and " TT " layout, together with Hammersmith's superb ship models attracted much attention, but the most popular show inside the hall was the cinema which gave five shows of films provided by the Talyllyn Society and Esso Petroleum.

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American Magazine Subscriptions. One year "Model Railroader," 39s., back numbers, 3s. 6d. (after June, 1952, 4s. 6d.). Free booklet quoting others.—WILLEN LTD., (Dept. 42), 101, Fleet Street, London, E.C.4.

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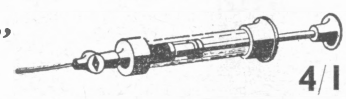

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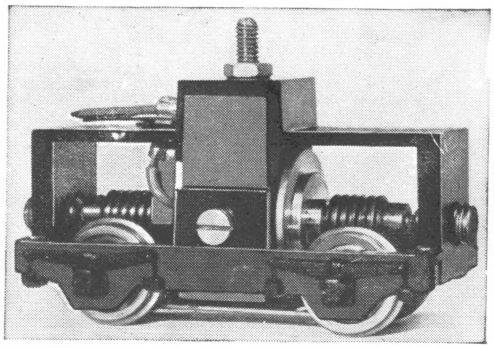

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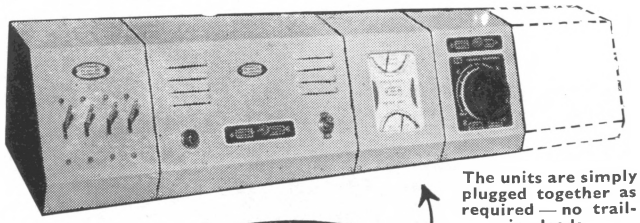

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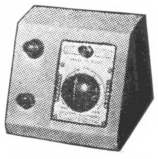

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